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*Views of patients, dentists, and dental students  
with respect to organizational aspects  
of dental practices*

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# **Views of patients, dentists, and dental students with respect to organizational aspects of dental practices**

## **Proefschrift**

ter verkrijging van de graad van doctor  
aan de Radboud Universiteit Nijmegen  
op gezag van de rector magnificus prof. mr. S.C.J.J. Kortmann  
volgens besluit van het college van decanen  
in het openbaar te verdedigen op woensdag 6 februari 2013  
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*door*

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# Chapter 1

## General introduction

The General introduction is derivative of the article published in the Nederlands Tijdschrift voor Tandheelkunde, September 2009.



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# 1

## GENERAL INTRODUCTION

*This thesis contains a description of the priorities and prescripts—defined as specific operational responsibilities—regarding the organizational aspects of a general dental practice from the perspective of patients, dentists and dental students. The reasons for this research include both judicial and social developments that can influence dental care within the Netherlands.*

### THE QUALITY OF DENTAL CARE ESTABLISHED BY LAW

A variety of laws were introduced into the Dutch health care system at the end of the last century. These laws were passed in order to both improve the quality of health care and strengthen the position of the patient. The following is a brief description of the various laws that—*either implicitly or explicitly*—are concerned with the quality of dental care.

***Individual Health Care Professions Act (Wet BIG):*** to function lawfully, a dentist must be registered in the BIG-register. By registering, the dentist has the right to maintain a protected professional title and perform certain specialized procedures. Because only medical professionals with a specific education are eligible to register, the quality of health care that can be delivered is indirectly controlled. More specifically, the subject of “quality” is outlined in Art. 40 BIG, which requires dentists to organize their professional care and care for their materials in such a way that will lead to—or *should lead to*—proper care: this particular kind of health care should be effective, efficient, patient-driven and of high quality, providing a systematic means of protecting, maintaining and enhancing the quality of care. Moreover, “Wet BIG” provides disciplinary rules for medical professionals.

***Medical Treatment Agreement Act (Wgbo):*** once a patient has made an appointment with a dentist, a (*medical*) treatment agreement is considered. Art 7:453 BW (*Civil Code*) obliges health care providers—including dentists—to pay attention to the proper care that should be delivered by a reasonably competent health care provider and thus act in accordance with the responsibility that he/she has for the client. This responsibility stems from the current professional standard that applies to all medical professionals. Even though the “Wgbo” does not explicitly mention the term “quality”, this concept is implicitly covered by the reference to the professional standard. Thus, denying responsibility as a health care provider is prohibited, which is an implicit expression of quality in this law. Above all, the “Wgbo” has strengthened the position

of the patient. The law summarizes a number of obligations that dentists must perform. One of these obligations is the so-called “informed consent”, in which the dentist is required to provide an explanation of each treatment and—if *necessary*—provide this explanation in written form. Moreover, the dentist must maintain proper patient records and the patient reserves the right to demand access to the records at any time.

***Health Care Institutions Quality Act (Kwz)***: a dentist who is professionally active in a health care institution such as a hospital must conform to the Health Care Institutions Quality Act. Currently, an increasing number of dentists are active in professional groups that are also governed by this law. The “Kwz” requires health care institutions to provide proper care, implement quality-driven policies, publish an annual report and provide patients with information regarding quality.

In addition to these laws, dentists must also deal with laws that indirectly influence the quality of health care even further. Thanks to the Client’s Right of Complaint (*Care Sector*) Act (*Wkcz*), patients can influence the quality of health care. A health care provider is legally required to incorporate a complaints procedure in his/her operational management system. Based on the “Wkcz”, a complaints committee can offer advice to the benefit of the quality of (medical) practices. Moreover, the presence of a complaints procedure is often viewed as an indicator of quality (1). The health insurer—on the basis of the *Health Insurance Act (Zvw)*—can exert an influence on dentists in order to provide high-quality health care. In this way, the health insurer can refuse to enter into a contract with any dentist who cannot meet this minimum quality.

The “BIG” and “Wgbo” laws are not considered satisfactory by everyone. The “BIG” law has its limitations in that it lacks both consistency and clarity (2). An evaluation of the “Wgbo” reveals that the primary goal of this law—*namely, to strengthen the position of the patient*—has been achieved (3). Dentists, however, are not as satisfied with the “Wgbo”, fearing both an increase in the number of lawsuits and a more formal relationship between dentists and their patients (4). Research performed by The Royal Dutch Medical Association (KNMG) showed that in addition to dentists being less satisfied with the “Wgbo”, this sentiment is shared by the medical profession as a whole (5). Limiting the number of laws and combining existing patient laws into two clear laws—one for patient rights and one for the quality of health care—has been proposed (6). The Federation of Patients and Consumer Organizations in the Netherlands (NPCF) has attempted to discern the limitations of the contemporary legislation with a proposal for a so-called “health care consumer law” (7). Moreover, the Council for Public Health and Health Care (RVZ) has called attention to existing gaps in patient rights (8).

## THE QUALITY OF FUTURE DENTAL CARE

In addition to the aforementioned legislation, social developments have also influenced dental care. For example, numerous reports in which organizing (*dental*) health care is of central importance have been published. One of the common conclusions emerging from these reports is that the organization of dental care is ready to change, as already noted by more and more dentists, who find that their tasks are performed by assistants, and this trend is likely to continue into the future (9;10). As early as 2000, the Advisory Group Capacity Dental Care became an advocate for differentiating tasks within the dental care section to improve the quality of health care (11). A couple of years later, the Committee Innovation Dental Care openly agreed with this position (12).

In addition, patients have a more prominent role in health care and the right to both choose and receive information in order to make informed choices for either a specific dentist or particular treatment, as described by the Dutch Health Care Authority (NZA) in their *“Consultation Document Dental Care”* using the terms transparency, freedom of choice and legal position (13). In this consultation document, the NZa notes that in dental care, it is unknown how a consumer will react to differences in either price or quality between different health care providers. Furthermore, it is uncertain whether or not a free-market system will stimulate health care providers such as dentists and physicians to deliver optimal performance. According to the NZa, a lack of transparency and/or an uneven playing field are the reasons for this uncertainty (14).

Aside from publicly funded institutions, organizations representing dentists and patients are also concerned with the notion of *“quality within dental care”*. The Dutch Dental Association (NMT) is actively involved in establishing and maintaining the quality of dental care on several levels. In 2007, the Quality Register Dentists (KRT) was introduced, and every dentist—*provided he/she is willing to meet a minimum standard of quality*—can register for the KRT (15). In addition to this registry, other initiatives have been implemented to actively involve dentists in providing high-quality health care. These initiatives include continuing education and refresher courses, as well as peer-review programs. The Association of Dutch Dentists (ANT) has founded the Foundation Guarantee Fund Dental Care. This Foundation can provide patients a financial compensation when a dentist is omitted after a dentist and a patient agreed about a compensation in case of a dispute. Moreover, both the NMT and the ANT give their clients the opportunity to join a complaints committee; as part of the Client’s Right of Complaint (Care Sector) Act, dentists are legally required to join such a committee.

Under the authority of the NMT, in 2005 the NPCF developed a number of quality indicators for dental care from the patient’s perspective. These indicators reflect free



choice, accessibility, service, accommodation, information and approval, quality of treatments, hygiene, treatment, chain of care, prices, evaluation and feedback. Each of these indicators was revised in 2008 (16).

### **RECENT DEVELOPMENTS IN DUTCH HEALTH LAW**

In addition to the aforementioned plans, the Dutch government has instituted a number of other initiatives. In 2002, the Minister of Health, Welfare and Sports (VWS) introduced a plan designed to make health care more transparent (17). This plan was developed further in 2006 to make the quality of health care both measurable and comparable, and the results were made public and published (18). Based on a proposal for the so-called “*health care consumer law*” advanced by the NPCF, the Ministry of VWS proposed a bill entitled the “*Client and Quality of Health Care Act*” (*Wckz*), which was sent to a number of influential individuals in the health care sector for their comments (7). Together, these initiatives led to the creation of a program called “*Seven Rights of Clients in Health Care: Investing in Health Care Relationships*”, which was made public in 2008 (19). This program forms the basic foundation for a new law that should replace a number of current laws. The primary goal of this program is to enhance the position of patients and thereby improve the quality of health care.

Based on this program, a bill called the Patient’s Rights Act (*Wcz*) was drafted and sent to the Dutch House of Representatives in June 2010 (20). Two out of the seven proposed rights were not adopted because they were already covered by other parts of the legislation; these rights included the patient’s right to health care that is both available and accessible and the obligation for various health care providers to accommodate their treatments. This bill is currently being discussed in the Dutch House of Representatives. In November 2011, the Commission for Public Health Care organized a meeting with participants from different health care sectors. The commission’s report revealed that various parties are divided amongst themselves with respect to the law.

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#### **The Patients’ Rights Act and its influence on future dental practices**

The Patients’ Rights Act bill describes the following five legal rights to which patients are entitled:

- *The right to receive proper health care*
  - *The right to an effective and accessible complaints procedure*
  - *The right to make an informed choice*
  - *The right to information, permission, records and safeguarded individual privacy*
  - *The right to patient participation and proper administration*
-

When combined, these different rights should lead to rules for proper health care. The primary goal is to make patients aware of the fact that they are in fact of central importance in the health care system and that their rights are being considered (19).

The right to an effective and accessible complaints procedure and the right to make an informed choice will have the largest influence on dental practices and therefore these rights are described in more detail.

### ***The right to an effective and accessible complaints procedure***

In the most recent plans, handling the outcome of the complaint is of pivotal importance. A health care provider is legally required to incorporate a complaints procedure in his/her operational management system, and the manner in which a particular complaint is addressed must be put in writing. Moreover, the patient must be given access to an independent complaints committee that can give binding statements for compensation up to and including €25,000.

Currently, the right to complain is covered by the Client's Right of Complaint (*Care Sector*) Act. One of the conclusions that emerged from the evaluation of this law was that patients generally feel that complaint procedures are not sufficiently accessible. Overall, the persons filing the complaint are not satisfied with the outcome (22). The new legislation is designed to make this procedure both simpler and more accessible. An independent complaints committee also has the authority to give compensation. The current complaints committees of both ANT and NMT can only give advice, and this advice is not in any way binding. In the future, dentists who have a conflict with a patient will be obliged to inform the patient of all possible ways to handle the complaint.

### ***The right to make an informed choice***

The patient has the right to freely choose a health care provider, and the patient should be able to base his/her decision on accurate information. Thus, the patient has the right to make an informed choice. The information to which the patient has access ranges from the quality of health care that has been delivered to the experiences of other patients, and all of this information should be both reliable and readily comparable. There are two types of information, individual and general information.

***Individual information:*** according to the "Wgbo" (Art. 7: 448 BW), dentists are legally obliged to actively provide patients with information regarding the proposed treatment, alternate treatments and aftercare. The right to information regarding how complaints are handled is an important aspect as well, and this aspect has been addressed by the Client's Right of Complaint (*Care Sector*) Act.

**General information:** *the patient has the right to receive general information such as how various practices operate, other patients' experiences with a particular practice and the opening hours of a particular practice.*

The right to make an informed decision changes both the extent and the content of the information that dentists are obliged to disclose to their patients in order for the patients to make an informed choice. In different parts of the medical sector, patients can receive insight into the health care that is delivered by certain practices using various websites that provide information regarding medical achievements and organizational aspects of health care. For example, the website [www.kiesbeter.nl](http://www.kiesbeter.nl) (which can be translated as "choose better") is a public health care portal that is subsidized by the Dutch government and gives consumers reliable information regarding health care and various health care providers. This kind of information is generally lacking with respect to dental care, thereby making it difficult for patients to make an informed choice in favor of a particular dentist. The website [www.allesoverhetgebit.nl](http://www.allesoverhetgebit.nl) ("all about teeth") provides extensive information regarding dental care in general, but this website does not contain information regarding any particular dentist (except for names and addresses). A pilot study conducted by the Department of Dentistry at the Radboud University Nijmegen Medical Centre revealed that most people receive their information regarding dentists from friends, family, neighbors and/or colleagues. Moreover, fewer than half of the respondents feel that they have sufficient information to make the correct choice, even though an increasing number of dentists use the Internet to make information regarding their practices available (23).

Patients can also find information regarding their dentist at the BIG-register ([www.ribiz.nl](http://www.ribiz.nl)), which is the register that stems from the Individual Health Care Professions Act. However, this information is usually difficult to access because this register only allows one to search for the location of a particular health care professional, and some dentists do not live in the same place in which they maintain their practice. Moreover, most patients do not know where to find the BIG-register (2). Even if the registration of a dentist in this register provides reliable information regarding the quality of his/her dental care, this information was only viable at the time he/she registered.

In the spring of 2008, many dental specialists (i.e., oral surgeons) re-registered in the BIG-register. A medical specialist can only re-register if he/she has gained sufficient work experience over the past five years or has received sufficient training. From January 1, 2012, these criteria also apply to dentists, and they must fulfill the criteria by 2017 (24).

To help them make an informed choice, patients can also use the Quality Register Dentists (*KRT*) introduced by the Dutch Dental Association, a public register comprised of dentists who meet specific criteria.

In the bill that was proposed by the Ministry, the right to choose and receive information regarding choices also means that dentists will be obliged to collect the opinions and experiences of their patients. This can be accomplished either by delivering a survey to patients to measure patient satisfaction directly or by taking into account particular experiences that patients may have. Professional dental care associations currently already offer these kinds of surveys to their members, and participation in such a survey is strictly voluntary. To date, a relatively few dentists have conducted such a survey, and the results are usually not published.

### **VISIBLE DENTAL CARE**

In order to increase the transparency and quality of health care, the Dutch government launched the “Zichtbare Zorg” program (*literally translated as the “Visible Care” program*) (25). This program supports health care sectors in the development of valid and reliable information that can be used:

- a) by health insurers during their negotiation with health care providers;*
- b) by the Health Inspectorate for monitoring the quality of care;*
- c) by health care providers for comparing their quality of care with colleagues and thereby improve their quality; and*
- d) to support patients in making an informed choice with respect to a health care provider.*

The aim of the Visible Care program is legally founded in the aforementioned Patients’ Rights Act. Several stakeholders in the health care sector participate in this program and include patient organizations, the Health Care Inspectorate (*IGZ*), health insurance companies and representatives of various medical professions. Aims of the Visible Care program are to:

- *Provide patients with medical information regarding the safety, efficiency, efficacy and patient-centeredness of health care using quality indicators to measure the process, structure and outcomes of the health care that is delivered. By developing these quality indicators, patients will be able to receive more insight into the quality of health care. An indicator is described as “a measurable phenomenon that carries a signaling function with regard to the quality of health care and the quality of the*

organization" (26). In this way, an indicator serves as a potential indication of health care quality (27). Health care will need to be patient-centered, timely and effective, and it will need to provide a sufficient variety of options to patients. With respect to dental care, this could mean that more dental quality indicators will be (or should be) developed in order to establish what the term "quality" means, thereby providing more insight into this phenomenon and increasing safety.

- *Provide patients with information regarding the organizational aspects of health care, including information regarding opening hours, dental fees and accessibility.*
- *Survey patient experiences with respect to the health care that was delivered, measured using the Consumer Quality index (CQ-index), which is based on the American CAHPS (Consumer Assessment of Health care Providers and Systems) questionnaire and the Dutch QUOTE (QQuality Of care Through the patient's Eyes) instrument (28-31). To date, a CQ-index has not been developed for Dutch dental care.*

In 2009, as part of the Visible Care Program, the Visible Dental Care Program was created to facilitate the dental care sector's development of information for patients to make an informed choice.

### **CENTRAL QUESTION**

There is a growing trend—both in the Netherlands and in other European countries—to make (primary) health care more responsive to the expectations of its consumers. Clarification of these expectations with respect to dental care—and comparing them with the expectations of patients and with the dentist's perception of his/her patients' expectations—is a fundamental step in this process (32). In this respect, research has been focused primarily on health care provided by medical doctors in hospitals or by general practitioners. Thus, research on this topic is lacking in the dental care sector.

The primary goal of this thesis was the development of information regarding choices for patients under the authority of the Visible Care program. In this process, focus was placed on views of patients, dentists (*General Dental Practitioners, GDPs*), and dental students on organizational aspects of dental practices.

*In particular this thesis addresses the following research questions:*

1. *Which organizational aspects are considered to be the most important by patients when assessing a general dental practice, and which patient characteristics influence their views?*

2. *What are the views of patients and GDPs with respect to the organizational aspects of a general dental practice?*
3. *Can GDPs adequately estimate the views of their patients with respect to the organizational aspects of a general dental practice?*
4. *How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and GDPs, and what prescripts do dental students propose? In their proposed prescripts, do students more closely resemble patients or GDPs?*

Once the priorities of patients and GDPs regarding the organizational aspects of a general dental practice are known, one can then emphasize the aspects that GDPs and patients rated as being the most important in order to provide the information that is desired by the new legislation and the Visible Care program. Comparing the priorities of dental students with the priorities of patients and GDPs can be useful, so that graduating dental students can satisfy patient preferences and expectations in daily dental practice. Therefore, insight into the differences and similarities between the preferences of patients, GDPs, and dental students with respect to organizational aspects is desirable.

By law, health insurance companies must purchase health care in order to fulfill their obligation to provide the insured with the medical care to which they are entitled. It is conceivable that health insurance companies will purchase medical care that is in the best interest of their insureds and thereby they represent the views of the insured. Because of this bias, health insurance companies were not used as research subject in this thesis.

## OUTLINE OF THE THESIS

To address the aforementioned research questions, patients, GDPs and dental students were surveyed by either handing out or sending a questionnaire to potential respondents. The outline of the thesis is shown in **Table 1**.

**Table 1. Outline of the thesis**

<b>Subject</b>	<b>Method</b>	<b>Chapter</b>
Preferences of patients	<i>Survey among 5000 patients</i>	<b>2</b>
Views of patients and GDPs	<i>Survey among 5000 patients and 500 GDPs</i>	<b>3</b>
Estimation of GDPs on patients' views	<i>Survey among 400 GDPs</i>	<b>4</b>
Views of students compared to patients and GDPs	<i>Survey among 220 students</i>	<b>5</b>
Discussion	<i>General discussion of the results</i>	<b>6</b>
Summary	<i>Summary of thesis in English and Dutch</i>	<b>7</b>

In **chapter 2**, we examine the priorities of patients when assessing a general dental practice. After a literature search was performed, a questionnaire was developed and pilot-tested. In a survey study, 5000 questionnaires were handed out to dental patients who were distributed over 100 dental practices in the Netherlands. In the questionnaire, the respondents were asked to choose 10 out of 39 aspects that they consider to be important when they assess a general dental practice. In this chapter, we focus on the aspects that were mentioned by the majority of dental patients.

**Chapter 3** describes the views of patients and GDPs with respect to the most important aspects that were selected by patients. The respondents consisted of the 5000 patients in the **chapter 2** who received a questionnaire during their visit to the dental practice and a total of 500 GDPs. A questionnaire—which was similar to the patient questionnaire but adjusted for GDPs—was sent to a sample of 400 GDPs. GDPs from the 100 dental practices that participated in the patient survey also completed this questionnaire. In this study, the standards of the aspects mentioned by at least 50 percent of the patients were compared to the standards of the GDPs.

**Chapter 4** describes the estimation by GDPs with respect to the views of their patients. It is important that GDPs consider patient preferences when organizing their practice. A sample of 400 GDPs received a questionnaire in which they were asked to estimate the views of their patients with respect to the organizational aspects of a dental practice.

**Chapter 5** compares the views of dental students with the priorities and prescripts of patients and GDPs. In dental education, it is a challenge for dental schools to adapt their curricula to meeting changing societal and legal standards (33) and take patient perspectives into consideration. In the literature, however, the focus in dental

education has been placed primarily on the perspectives of dental educators, dental students and dental practitioners. Moreover, although efforts have been made to place patients at the center of dental education, which has led to changes in the organization of dental education (34), patient preferences remain underrepresented. Dental students are the GDPs of the future, and therefore it is important to know—*from an educational point of view*—whether the views of students differ from those of GDPs.

The following research questions are answered: i) How do dental students rate the importance of various organizational aspects of dental practices, and what are their prescripts for GDPs with respect to these matters? and ii) In doing so, do students resemble patients or GDPs? To address these questions, 220 dental students were surveyed, and the outcomes were compared to those of dental patients and GDPs.

**Chapter 6** is a general discussion of the major outcomes, strengths and limitations of the study. The relationships between the various studies, together with the relevance and impact of the thesis, are discussed. Furthermore, conclusions and suggestions for future research are presented.

Finally, in **chapters 7 and 8**, the thesis is summarized in both English and Dutch.



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# Chapter 2

## Patients' priorities in assessing organizational aspects of a general dental practice



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## Abstract

### **Objectives**

*To explore which organizational aspects are considered most important by patients when assessing a general dental practice, and which patients' characteristics influence their views on these aspects by a paper questionnaire.*

### **Participants**

*The questionnaire was handed out to a sample of 5,000 patients in the Netherlands.*

### **Results**

*The response rate was 63%. Six organizational aspects out of a list of 41 aspects were valued as most important by at least 50%. In decreasing order of importance, these are: accessibility by telephone; continuing education (CE) for general dental practitioners (GDPs); Dutch-speaking GDP; in-office waiting times; information about treatments offered; and waiting lists. For four out of these six aspects, respondents' age and education significantly influenced their preferences.*

### **Conclusions**

*Aspects concerning the infrastructure of a general dental practice were chosen more often than aspects such as working to professional standards, working according to protocols and guidelines, quality assessment, and guaranteed treatment outcomes. The findings will enable organizations to increase the transparency of health care delivery systems to zoom-in on those organizational aspects of dental practices that patients themselves consider most important. These findings can also assist GDPs in adapting their organizational services to the preferences of patients or specific patient groups.*

# 2

## INTRODUCTION

In recent years, most western countries have seen a move towards more transparency in health care. The Netherlands is no exception. More specifically, a variety of initiatives have been undertaken to make the delivery of health care services more transparent to the end users, the patients (1). The assumption underlying these initiatives is that patients, when provided with relevant information about the nature of health care services and the quality of health care service providers, will be able to make more informed decisions and ultimately benefit more from the particular services they select to undergo (2, 3). A number of European countries have pushed the development of these initiatives through legislation, essentially forcing increased transparency onto the health care system (4). For example, new health law initiatives currently being developed in the Netherlands will require health care professionals to provide patients with information about the quality of their own health care services, and to respect the patients' right to make an informed choice about those services (5). While inspired by and modeled on much older initiatives to foster informed consent by patients, these initiatives are more extensive in scope. For a normal informed consent process takes place in a situation in which a specific patient is being informed by a specific health care provider about a specific medical condition, its specific prognosis with and without specific treatment options, and the specific side-effects of each treatment option. In contrast, these new attempts at fostering transparency aim at two broader goals (6):

- 1. providing patients with information about the quality of health care services such that patients can choose which health care provider they want to consult;***
- 2. leveling the power differential between patients and health care providers by providing patients with information about health conditions and treatment options that used to be available to health care professionals only.***

The aforementioned two objectives directly benefit the patient. But the strategies developed to make health care services more transparent to patients can also enable health care professionals to compare their own performances with those of colleagues, or to be compared by third parties such as insurance companies or consumer advocacy organizations that want to grade health care professionals on their ability to deliver quality care (7).

As is true of other health care services, patients in need of oral health care services need information about general dental practitioners (GDPs) in order to make an informed choice about which practitioners to visit for which types of procedures. As no literature is known, Dutch patients currently do not have sufficient information on the quality of care delivered or information on dental services to make such choices.

### **DUTCH EFFORTS AT INCREASING TRANSPARENCY**

The Dutch government is an ardent supporter of increased transparency in health care and to that avail has launched the “*Zichtbare Zorg*” program, literally translated as “*Visible Care*” program (8). Stakeholders in health care such as patient organizations and the medical professions take part in this program. The Visible Care program seeks to:

- ***Provide patients with medical information concerning the safety, efficiency, efficacy, and patient-centeredness of health care, using quality indicators that measure the process, structure and outcomes of the health care delivered;***
- ***Provide patients with information concerning organizational aspects of health care, such as information on opening hours and accessibility; and***
- ***Survey patients’ experiences with the health care delivered, measured with the Consumer Quality index (CQ-index), which is based on the American CAHPS (Consumer Assessment of Health care Providers and Systems) questionnaire and Dutch QUOTE (QQuality Of care Through the patient’s Eyes) instrument (9).***

The study described in this article is part of the encompassing Visible Care program. It focuses on general dental care and especially on information directed at patients concerning *organizational* aspects of general dental practices. Consistent with the overall purpose of the Visible Care program, stakeholders focusing on oral health care seek to increase the transparency of dental services by providing patients with information about these services. But this can be done effectively only if it is known what kinds of information patients themselves consider relevant when deciding between different GDPs. Furthermore, since GDPs themselves play a key role in this informative process, it is vitally important to them to know what information patients really need and want, lest their efforts at boosting transparency become highly inefficient and hence very costly. No data are available about the informational needs and wishes of Dutch dental patients in general or of specific patient populations in particular, leaving GDPs at a loss as to what information concerning *organizational* aspects of general dental practices to provide to which patient populations. It is therefore not surprising that most dental practices do not even have a website

providing information about their practice, quality of care, dental services, or patient experiences, although the use of such websites will have to increase if the objectives of the Visible Care program are to be realized (10, 11).

As part of the Visible Care program, the Dutch government wants all GDPs to provide a list with comparative information on those organizational aspects of their dental practices that will best assist patients in making an informed choice about which GDP to visit. This list should cover, firstly, aspects which dental professionals are already obligated to inform patients about, such as costs and quality of care; secondly, aspects that the majority of patients considers important; and, thirdly, aspects reflecting the needs of particularly vulnerable patient populations. Though the number itself is somewhat arbitrary, a decision was made to initially limit the list to 10 informational items in total.

Our study was designed to get a better sense of the second set of informational items listed above. Since it is presently unknown which types of information about dental practices and practitioners patients actually consider important, we explored: (1) which organizational aspects are considered most important by patients when assessing a general dental practice; and (2) which patients' characteristics influence their views on these aspects?

## **MATERIALS AND METHODS**

### ***Development of the questionnaire***

A questionnaire was developed for assessing the views of patients on the organizational aspects of general dental practices. A framework of 169 organizational aspects was compiled, based on a literature search and aspects described in the International Organization for Standardization (*ISO*) 9001 certification method (113 aspects), adapted to the Dutch health care model (*Corporation Harmonization Quality Assessment in Health care: HKZ*), and the European Practice Assessment (*EPA*) instrument (56 aspects) (12-14). The HKZ model renders quality in health care institutions assessable and sets norms, which originate from the ISO 9001 certification model (15). The EPA instrument is a framework for general practice management made up of quality indicators shared by six European countries (12). Our framework consisted of five domains:

- I. Infrastructure;**
- II. Staff;**
- III. Information;**
- IV. Finance; and**
- V. Quality and safety.**

The combined list of 169 organizational aspects was rated on overlapping aspects, double-named aspects, and usefulness for assessing a general dental practice. This resulted in a list of 113 aspects. In order to reduce the number of questions even further and thereby increase the response rate, several related aspects were clustered at a higher aggregation level and reduced to a list of 61 aspects. For instance, aspects such as accessibility by telephone after-hours, during working hours, or in the case of an emergency were combined into a single aspect: accessibility by telephone. In addition to the variables gender and age, patients were asked to indicate their level of education by choosing from the following options:

- *low-education (defined as: no education or elementary school)*
- *middle-to-low-education (defined as: junior high school)*
- *middle-education (defined as: high school)*
- *middle-to-high-education (defined as: college/university - bachelor degree)*
- *and high-education group (defined as: university - master degree or above)*

Finally, we asked patients whether they had dental insurance and whether they lived in a one-person household.

Three focus groups (*two consisting of patients, randomly selected by a patient platform, and one consisting of GDPs*) rated the instrument for relevance, usefulness, and clarity. Based on consensus discussions a final list of 41 organizational aspects of a general dental practice was derived (**Table 2**). The aspects were divided into five domains, based on the EPA instrument described above. Finally, the questionnaire was pilot-tested among 50 patients in a general dental practice, resulting in several small refinements.

### ***Sampling procedure***

The study population consisted of Dutch patients visiting a dental practice, equally divided over the whole country. We aimed at a response rate of 50% and a minimum of 2,500 questionnaires returned. The sampling procedure was as follows. The Netherlands is divided into 12 provinces. In each province, a stratified sample of three small communities (*less than 30,000 inhabitants*), three medium-to-large communities (*between 30,000 and 80,000 inhabitants*), and three large communities (*over 80,000 inhabitants*) was drawn. This procedure resulted in a list of 103 communities (*not every province in the Netherlands has communities with more than 80,000 inhabitants*). Additionally, in each selected community, a GDP (*working in a dental practice*) was randomly chosen from all GDPs registered in that community with the Dutch Dental Association in 2008. The GDPs were contacted by telephone to explain the purpose of the study and were asked to participate. If a GDP did not wish to participate, the GDP

listed next in the Dutch Dentist Guide 2008 for that city was approached. In this manner, 147 GDPs were contacted by phone. A standardized confirmation letter was sent to the participating GDPs ( $n = 103$ ) as well as a letter of instruction and 50 patient questionnaires and related materials.

The GDPs were asked to approach the first 50 patients they treated in the third week of January 2009 to participate in the survey. Patients could complete the questionnaire anonymously at home and return it to the research team at the University of Nijmegen in a stamped pre-addressed envelope. For any patient who accepted the survey, the GDPs or dental assistant wrote the name and address of that patient on the standardized reminder envelope. Two weeks after the last questionnaire was handed out, reminders were sent by the GDPs. As the survey was completely anonymous, and no questions were asked about the patients' own health status or the health care delivered, approval by an Institutional Review Board/Research Ethics Committee was not necessary under Dutch law. At the end of the study, all participating GDPs received a report with the outcomes of their own practice compared to the other practices.

### ***Statistical analyses***

In the questionnaire, patients were asked to choose the 10 most important organizational aspects out of the 41 aspects listed. Since a considerable number of respondents did not abide by this instruction, only respondents who chose between 8 and 12 aspects ( $n = 2,676$ ) were included in the analysis. Logistic regression was applied to analyze the relationship between patients' characteristics and their choices. In the logistic regression model, gender, age, education, dental insurance, and living status were used as independent variables. For the variable age, the 65+ group ( $n = 379$ ) was the reference group. The other age groups were created in accordance with the categories used by Statistics Netherlands (16): *under 20 years* ( $n = 35$ ); *20–39 years* ( $n = 627$ ); *40–54 years* ( $n = 1048$ ); and *55–64 years* ( $n = 587$ ). For the variable education, the *low-education* group was the reference group ( $n = 300$ ). The groups compared were the *middle-to-low-education group* ( $n = 1110$ ), the *middle-education group* ( $n = 292$ ), the *middle-to-high-education group* ( $n = 756$ ), and the *high-education group* ( $n = 218$ ).

For the analyses of the patients' characteristics, odds ratios (OR) were calculated. Using logistic regression, the OR was used to quantify the relationship between background variables (*age, gender, education, dental insurance, and one-person household*) and the likelihood of a given aspect to be chosen among a respondent's top 10. The OR can be interpreted as relative risk. If, for example, the OR = 2 for females compared with males, then, all other background variables being equal, the chance that females will choose that aspect is twice as large as it is for men. The logistic



regression analyses were only applied to those aspects chosen by a minimum of 50% of the respondents as most important. All statistical analyses were performed using SPSS, version 16.

## Results

### *Response*

The overall response rate was 63% ( $n = 3,127$ ). Of the respondents, 59% were female and 41% were male. The respondents differed from national population data with regard to gender and age: males were under-represented and the 40-to-64-year age group was over-represented (**Table 1**). The response rates of respondents living in large, medium, and small communities were 58%, 60%, and 68%, respectively.

**Table 1: Distribution of patient sample and national figures on gender and age: percentages of total**

	<i>Patients (<math>n = 3127</math>)</i>	<i>Visiting patients (national data)</i>
<b>Gender</b>		
<i>Male</i>	41.1	47.4
<i>Female</i>	58.9	52.6
<b>Age (years)</b>		
16-19	1.3	5.9
20-39	23.7	31.2
40-64	60.0	44.1
>65	15.0	18.8

**Table 2: Ranking and percentages of the ten most chosen organizational aspects for assessing a dental practice by patients**

<b>Ranking</b>	<b>Aspects</b>	<b>%</b>	<b>Domain</b>
1	Accessibility by telephone	76.5	I
2	Continuing education of GDP	61.9	II
3	Dutch-speaking GDP	57.0	V
4	In-office waiting times	54.8	I
5	Availability of information on dental services	54.3	III
6	Availability of appointments (waiting lists)	51.7	I
7	Guarantee on treatments	43.0	IV
8	Quality assessment	41.4	V
9	System for check-up of perishable goods	37.7	V
10	Treatment by same dental therapist	34.6	II
11	Specialties in dental practice	33.5	II
12	Information on tasks of staff	29.6	II
13	Working according to professional standard	28.3	V
14	Information on dental bill	27.4	III
15	Reminder of routine oral examination	26.9	III
16	Opening hours evening and/or weekend	26.0	I
17	Physical accessibility	25.0	I
18	Accessibility for disabled patients	21.1	I
19	Parking spaces	20.5	I
20	Working according to protocols and guidelines	20.1	V
21	Clarity of responsibilities	19.1	II
22	Meetings of GDP with colleagues	17.8	II
23	Waiting room facilities	17.7	I
24	Continuing education dental hygienist	17.5	II
25	Information on internet	17.3	III
27	Patient consultation in dental team	14.9	II
26	Having liability insurance	14.8	V
28	Continuing education dental assistant	13.9	II
29	Meetings of GDP with dental technicians	11.7	II
30	GDP taking part in peer supervision	10.5	V
31	Patient satisfaction survey	9.2	II
32	Receiving dental bill	8.9	IV
33	Disease diagnoses	8.7	V
34	Payment possibilities	8.4	IV
35	Meetings of GDP with health insurers	8.1	II
36	Attending complaint committee	7.5	V
37	Risk assessment	5.9	V
38	Insight of health insurer in medical records	5.5	V
39	Parking fees	4.4	I
40	Information about complaints procedure	4.1	III
41	Employee satisfaction survey	3.4	II

Domain: I = infrastructure; II = staff; III = information; IV = finance; V = quality and safety.

The top-6 varied only slightly between variables gender, age, and education. Looking at all these rankings separately (which yields 78 rankings), only three times aspects were chosen in the top-6 other than the six aspects listed above.

### ***Patients' characteristics***

Patients aged 20–39 and 40–54 years selected the aspect '*accessibility by telephone*' significantly less often, with ORs of 0.59 and 0.39, respectively, compared with the reference group of patients aged 65 and over (**Table 3**). Higher educated patients had a lower preference for this aspect compared with lower educated patients (middle education, OR = 0.60, middle-to-high education, OR = 0.62, and high education, OR = 0.43).

Age, gender, and level of education significantly influenced the respondents' choices for the aspect '*continuing education for GDPs*'. A significantly higher percentage of women chose '*continuing education for GDPs*' as most important compared with men (OR = 1.30); younger patients scored lower odds on this aspect (under 20 years, OR = 0.57; 20–39 years, OR = 0.73) in comparison with the reference group aged 65+ years. With increasing level of education, this organizational aspect was more frequently selected.

Education groups differed significantly for the aspect '*Dutch-speaking GDP*' ( $P < 0.001$ ). This aspect was chosen less by higher educated patients compared with the reference group. Compared with the reference group, all other age groups chose the aspect '*in-office waiting times*' more often ( $P = 0.047$ ).

Significant differences for gender, age, and dental insurance were found for the aspect '*availability of information on dental services*'. Compared with men, women chose this aspect more often (OR = 1.57;  $P < 0.001$ ). Older age groups selected this aspect more often in comparison with younger age groups, as did patients who had a dental insurance compared with uninsured patients ( $P = 0.029$ ). The OR for the aspect '*availability of appointments*' (waiting lists) increased with education. Higher educated patients chose the aspect more often than lower educated patients ( $P < 0.001$ ).

**Table 3: Significance, OR, and confidence interval for the effect of gender, age, education, dental insurance, and living status on aspects chosen by at least 50% of the patients. All statistics calculated by multivariate logistic regression.**

Accessibility by phone				Continuing education of GDP		
	P	OR	95% CI of OR	P	OR	95% CI of OR
Gender (f=1, m=0)	<b>0.193</b>	1.13	[0.94...1.37]	<b>0.002</b>	1.30	[1.10...1.53]
Age (ref=65+)	<b>&lt;0.001</b>			<b>&lt;0.001</b>		
under 20		0.59	[0.25...1.39]		0.57	[0.28...1.15]
20-39		0.39	[0.28...0.54]		0.73	[0.56...0.96]
40-54		0.57	[0.42...0.79]		1.06	[0.83...1.36]
55-64		0.77	[0.54...1.09]		1.24	[0.95...1.63]
Education (ref=low educ)	<b>&lt;0.001</b>			<b>&lt;0.001</b>		
middle-low		0.79	[0.56...1.11]		1.31	[1.01...1.71]
middle		0.60	[0.40...0.90]		1.75	[1.25...2.45]
middle-high		0.62	[0.44...0.89]		2.06	[1.56...2.72]
high		0.43	[0.28...0.66]		2.37	[1.63...3.45]
Dental insurance (y=1, n=0)	<b>0.661</b>	0.95	[0.75...1.20]	<b>0.987</b>	1.00	[0.81...1.23]
One-person household (y=1, n=0)	<b>0.086</b>	1.27	[0.97...1.65]	<b>0.338</b>	1.12	[0.89...1.43]

Dutch-speaking GDP				In-office waiting times		
	P	OR	95% CI of OR	P	OR	95% CI of OR
Age (ref=65+)	<b>0.386</b>			<b>0.047</b>		
20-39		0.89	[0.68...1.16]		1.25	[0.96...1.63]
40-54		0.78	[0.61...1.01]		1.35	[1.06...1.72]
55-64		0.84	[0.64...1.10]		1.05	[0.81...1.36]
Education (ref=low educ)	<b>&lt;0.001</b>			<b>0.374</b>		
middle-low		0.64	[0.48...0.85]		1.16	[0.90...1.51]
middle		0.54	[0.38...0.76]		1.30	[0.94...1.82]
middle-high		0.41	[0.30...0.54]		1.04	[0.79...1.36]
high		0.24	[0.16...0.34]		1.21	[0.85...1.72]
Dental insurance (y=1, n=0)	<b>0.423</b>	1.09	[0.88...1.34]	<b>0.621</b>	1.05	[0.86...1.29]
One-person household (y=1, n=0)	<b>0.149</b>	1.19	[0.94...1.50]	<b>0.075</b>	1.23	[0.98...1.56]

Availability of information about dental services				Availability of appointments (waiting lists)		
	P	OR	95% CI of OR	P	OR	95% CI of OR
Gender (f=1, m=0)	<b>&lt;0.001</b>	1.57	[1.34...1.85]	<b>0.396</b>	1.07	[0.91...1.26]
Age (ref=65+)	<b>&lt;0.001</b>			<b>0.050</b>		
under 20		0.37	[0.18...0.77]		1.57	[0.77...3.21]
20-39		0.60	[0.46...0.78]		1.28	[0.99...1.67]
40-54		0.69	[0.54...0.88]		1.32	[1.03...1.68]
55-64		0.85	[0.65...1.11]		1.03	[0.79...1.34]
Education (ref=low educ)	<b>0.071</b>			<b>&lt;0.001</b>		
middle-low		1.37	[1.05...1.78]		1.54	[1.18...2.01]
middle		1.25	[0.90...1.74]		1.79	[1.28...2.49]
middle-high		1.49	[1.13...1.95]		2.02	[1.53...2.66]
high		1.28	[0.90...1.82]		2.72	[1.89...3.91]
Dental insurance (y=1, n=0)	<b>0.029</b>	1.26	[1.02...1.55]	<b>0.156</b>	0.86	[0.70...1.06]
One-person household (y=1, n=0)	<b>0.716</b>	1.04	[0.83...1.32]	<b>0.659</b>	1.05	[0.83...1.33]

## DISCUSSION

In this study, patients were asked to choose the 10 organizational aspects they found most important when assessing a general dental practice. The ranking of aspects gives an indication of the relative importance patients assigned to each of the organizational aspects. This paper focuses on aspects chosen by at least 50% of the patients and therefore it seems that only a few aspects are very important for patients. However, we emphasize that some of the lower ranked aspects may be extremely important to certain (*categories of*) patients. The differences in the percentages are relatively small and demonstrate a fluent decrease of the percentages. Only the percentages difference between aspects 1 and 2 is large and as well between aspects 6 and 7.

A response rate of 63% is fairly good. However, a bias could have occurred in the selection procedure of the patients. The results of the questionnaire, completed by 3127 patients, provide an adequate picture of what patients see as most important organizational aspects of a dental practice. Due to the sampling procedure, patients who rarely or never seek dental services were not included in the study. Since such “non-attenders” can have different views, it would have been preferable if the study had been able to capture their views too. However, the impact of this limitation of the study is probably modest. Firstly, the majority of the Dutch adult population (85%) visits a dentist once a year. The non-attenders are hence a minority. Secondly, most persistent non-attenders are not likely to suddenly start frequenting a dental office when more information is available on the dentists’ websites. For example, one of the major reasons not to visit a dentist is dental anxiety; prevalence rates from 13.1% to 19.8% among the population (17).

The respondents were recruited from different communities and dental clinics. In the Netherlands oral health care is provided in different oral health care settings (*e.g. solo practices and large team practices or specialized practices*). Differences in the infrastructure of the dental clinics may have an impact on the services that are provided in these settings, influencing the responses of the participating patients in the study. However, 60 percent of the oral health care in the Netherlands is provided in a solo dental practice setting (18) limiting the impact of the infrastructure of dental practices on the study outcomes. Besides, in the questionnaire, the respondents were asked to give their (*organizational*) preferences for an ideal dental practice and not to assess the actual dental practice. The percentages of respondents did not differ statistically by the size of the communities. However, as mentioned already, compared to national data of Dutch dental patients, the 20- to 39-year age group was under-represented (24% vs 31%) and the 40- to 64-year age group was overrepresented (60% vs 44%). Hence, the results presented in **Table 3** may be biased towards the preferences of elderly patients. Combining the modest differences between age

groups, and the extent of over- or under-representation of specific age groups, the bias can be estimated to be 2% or less. Therefore, the top of the list of aspects is not likely to have been impacted.

The use of patients' views to improve health care delivery requires valid and reliable measurements methods. Because no single method existed that could reliably yield the information we sought to obtain, we had to design a new instrument. Our list of 41 items or aspects was developed using a literature search, focus group meetings and consensus discussions.

In general, it appears that patients put the most emphasis on the domain *"infrastructure"*. However, not each domain had the same number of aspects included in it. Hence, the odds of any single domain being given priority increased by the number of aspects included. In order to correct for this potential bias, we added the percentages of the aspects per domain and next divided them by the number of aspects per domain, resulting in the average percentage per domain. After this recalculation, *"infrastructure"* aspects are still deemed most important by patients for with 33.1% of patients selecting such aspects in their top-10; *"information"* domain aspects were next in line (26.0%), followed by aspects concerning *"quality and safety"* (21.6%), aspects in the domain *"staff"* (21.2%), and finally aspects in the domain *"finance"* (20.1%) (not in table).

Three of the top six top scoring aspects (*'accessibility by telephone', 'in-office waiting times', and 'availability of appointments'*) fall in the infrastructure domain. An international survey of the World Health Organization in 41 countries measuring patient experience with the non-clinical quality of care revealed that prompt attention (*e.g., short in-office waiting time, little travel time, and short waiting lists*) was valued as most important (19). Other studies showed the same findings (20,21). In contrast, only one aspect from the *"quality and safety"* domain made the top six: continuing education courses for GDPs. Patients ranked the aspect *'continuing education for GDP'* as far more important than similar courses for dental hygienists (*22 places different*). This is an interesting finding. In the Netherlands, dental hygienists treat patients without the supervision of a GDP. Therefore, one would have expected that patients would rank this aspect for dental hygienists equally highly. In this study, respondents were drawn from dental practices. We do not know whether dental hygienists were working in those practices, nor do we know whether the respondents visit independent dental hygienists regularly.

It is remarkable that the domain *"infrastructure"* was far more important to patients than the domain *"quality and safety"* (*which, besides 'continuing education', included aspects such as 'professional standard', 'working according to protocols and guidelines',*

*'quality assessment', 'guarantee on treatments'*). An explanation of this finding could be that patients trust the Dutch health system to assure high quality and safety standards among health professionals. They may simply take it for granted that their dentist is competent.

The aspect *'Dutch-speaking GDP'* is also included in the top 6. Language barriers between provider and patient can have a significant detrimental impact on the quality of the care rendered. Indeed, this was also one of the preferences among patients when selecting a primary care physician, as shown in a study by Arora *et al* (22). Highly educated Dutch dental patients find this aspect less important. An explanation can be that highly educated Dutch patients generally speak different languages and therefore could communicate with their GDP in another language, such as English.

The only aspect in the domain *"information"* which was chosen by 50% of the patients in their top-10 is *'availability of information on dental services'*. This is an expected outcome. After all, patients need information on the dental services offered in order to see if the services offered is wanted by them.

If, conversely, we look at the organizational aspects that were considered very important by only a small number of respondents (*less than 5% of respondents*), we find at place 39 (*out of 41*), the aspect *'parking fees'*. This is quite understandable. While parking can be a real nuisance in The Netherlands, patients probably know that GDPs cannot influence the parking policy of the local authorities. More surprising is the finding that *'information about complaints procedures'* was considered important by only a few patients. We know from jurisprudence and disciplinary proceedings that Dutch patients rarely file complaints about dentists. Our finding would lead to the conclusion that their hesitance to do so apparently is not a matter of lack of information about available complaints procedures. Maybe Dutch patients already are well-aware of the various options for launching a complaint available to them. Or maybe they are simply highly satisfied with their dentists and almost never feel the urge to formally complain.

Most curious is that patients are least interested in receiving information about *'employee satisfaction'*. We can only speculate about the reasons. Maybe patients simply assume that all persons working in dental offices are highly satisfied or they assume that employee satisfaction has little impact the care they themselves receive.

The second goal of our study was to explore whether patients' characteristics influence their preferences. 'Age' was significantly associated with four out of six aspects chosen by at least 50% of the respondents. It appears that the importance of the aspects related to the domain *"infrastructure"* decreases with age; the elderly

found these aspects less important, although they chose accessibility by telephone more often. In some other studies, age and gender were found to be significant variables associated with prioritizing aspects of a general medical practice, assessing primary care, and patient experiences of accessibility of primary care (23-25). The aspect '*Continuing Education for GDPs*' was chosen more often by respondents who were themselves highly educated, as one might expect. Less self-evident is that '*availability of appointments*' (*waiting lists*) was also chosen more often by respondents with a higher level of education. Again, we can only speculate about the reasons. It is not likely that highly educated people have greater difficulty adjusting their calendars; usually, people in lower paid jobs are the ones with less flexibility. Rather, this finding may reflect that highly educated people are less in awe of their GDP and hence less tolerant of waiting lists. We already mentioned that this group of respondents is *less* likely to consider it important that their GDP is Dutch-speaking, and we already speculated why this might be so. However, we could not find a reasonable explanation for the fact that this same group also considered '*accessibility by telephone*' less important.

The study gives insight into the organizational aspects of dental practices that patients themselves tend to consider important. This does not mean that other aspects, such as clinical indicators and patient evaluations can be disregarded. Being part of the Visible Care program, much effort will be put in the development of those indicators as well. However, the outcomes of this study can be used in the Visible Care program for the development of a list of comparative information on dental practices that patients can next use to make an informed choice for a particular GDP.

We pointed out earlier that the stakeholders in the Visible Care program have decided to initially limit the comparative list of informational items to 10 items only. Our research has shown that only 6 of 41 aspects were considered by at least 50% of patients to be very important. This leaves four open slots. Stakeholders may want to add aspects which the majority of respondents in our study considered less important but which could be crucially important for vulnerable minority populations, such as '*accessibility for disabled patients*' (# 18 in **Table 2**). Since there are relatively few disabled patients in most dental practices, their views were snowed under in our survey. One of the tasks of a government is to ensure that vulnerable patient groups are being heard and protected.

In their comparative list the Visible Care program may include some organizational items which are not chosen by the majority of the respondents in this study. Aspects, such as information about the '*different tasks and responsibilities*' of oral health care providers are required by Dutch health law (26). Therefore, they will be added to the comparative list of 10 items. Finally, the very objectives of the Visible Care program



can only be realized if dentists increase the 'information on the internet' about their practices, even though patients ranked this source of information quite low. The internet is an effective and efficient medium for dentists to provide information to potential patients. It therefore makes sense for the Visible Care program to plan on having GDPs make the comparative list of 10 organizational items available on the internet.

The Visible Care program, in addition to providing information about treatment outcomes and organizational aspects of their dental practices, will also require GDPs to execute and publish the results of patient experience or satisfaction surveys. **Table 2** shows that the aspect '*patient satisfaction survey*' was chosen by fewer than 10 percent of the responding patients as being important. One possible explanation for this outcome is that patients are not interested in the opinions of other patients and will not use this information when assessing a dental practice. But this is at least *prima facie* unlikely, because we know that many dental patients rely heavily on "*word of mouth*" quality indicators propovided by family or friends when deciding about a dentist (27). Alternatively, most patients do not deem this aspect important because they are generally satisfied with their GDP (28, 29).

Though developed and executed to meet the objectives of the Visible Care program, another beneficial outcome of our study is that GDPs can use our findings to adjust the organization of their practice to the preferences of patients in general or to the preferences of specific patient groups, such as the elderly. For instance, now that GDPs know that most patients consider '*accessibility by telephone*' extremely important for patients, they may want to make sure that their practice is accessible at all times by means of an assistant and an answering service. At the very least, they may want to install an answering machine with pertinent information about such items as opening hours and waiting lists. Another aspect which we found to be important to most patients is '*in-office waiting times*'. GDPs may want to design strategies for reducing waiting times, and promptly inform patients in their waiting rooms if unexpected delays in treatment do occur.

## **CONCLUSION**

When Dutch dental patients were presented with a list of 41 different organizational aspects about general dental practices and asked to select the top 10 most important aspects when selecting a practice, only six of these aspects were chosen by the majority of the respondents. Aspects concerning the infrastructure of the dental practice were chosen more often than other aspects, such as working to professional standards, working according to protocols and guidelines, quality assessment, and guaranteed treatment outcomes. The findings of this study will enable organizations that seek to increase the transparency of health care delivery systems, such as the Visible Care program in the Netherlands, to zoom-in on those organizational aspects of dental practices that patients themselves consider most important. But even in the absence of such nation-wide efforts, these findings can also assist GDPs in adapting their organizational services to the preferences of patients or specific patient groups. Our study was targeted at Dutch dental patients. We make no predictions about the relevance of our specific findings for other countries. However, we do believe that the method we used for uncovering patient preferences is probably applicable in many other national contexts.

## 2

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# Chapter 3

## Views of patients and general dental practitioners on the organizational aspects of a general dental practice



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## Abstract

### **Objective**

*To examine the views of patients and general dental practitioners (GDPs) on the organizational aspects of a general dental practice and to see if their views differ.*

### **Background**

*Health care has increasingly centered on the patient over the last two decades, and the patients' opinions have been taken more seriously. Although in other health care sectors research on organizational aspects has been performed, research in dental care is lacking on this subject.*

### **Design**

*We developed two questionnaires covering 41 organizational aspects of a general dental practice: one for GDPs and one for dental patients. The questionnaires were handed out in dental practices to 5000 patients and sent to 500 GDPs.*

### **Results**

*We describe the results of the organizational aspects mentioned most by 25% of the dental patients. For most aspects, the views of the patients and GDPs differed significantly. However, both respondent groups mentioned the same category the most.*

### **Conclusions**

*The results of this study could be used on a policy level for the development of guidelines and on a practice level for individual GDPs to adjust practice management to the preferences of patients.*

# 3

## INTRODUCTION

Over the last two decades, the views of patients on the delivery and improvement of health care have been increasingly valued (1, 2), and patient evaluations of care have been seen as an important outcome of health care (3). In stimulating quality improvement, assessment of the organizational aspects of the health care sector is high on the agendas of politicians, health care agencies as well as consumer organizations in the Netherlands (4-6). Alongside these developments, the Dutch government plans to introduce new patient legislation (7). In this context, patient expectations of, and experiences with health care are being increasingly explored by means of focus group meetings and surveys among patients (8-12). In dentistry, most studies on the quality of dental care focus on the medical technical aspects of the dental care delivered, views on the patient-general dental practitioner (GDP) relationship and on patient satisfaction (13-16). Studies in primary care show that patients highly value aspects on, for example, the availability and accessibility of care, such as *'same general practitioner (GP) each visit'*, *'easy to speak to GP by telephone'*, *'appointment in a short time'*, and on communication (17). To our knowledge, no studies have been performed on the operationalization or organizational aspects of general dental practices by patients and GDPs to improve the quality of dental care. In order to reach a high level of patient satisfaction, it is important to know which items patients consider important and how they operationalize these items. Knowledge of the views of patients and GDPs on the organizational aspects of general dental practices is important to identify areas of disagreement as well as areas of agreement between both groups as a first, fundamental step to respond to consumer expectations in this process. This knowledge can be used for the development of guidelines. Therefore, a study was carried out to explore the following questions:

- ***Which views do patients and general dental practitioners have on the organizational aspects of a general dental practice?***
- ***Which views on the organizational aspects do patients and general dental practitioners have in common and in which aspects do they differ?***

The term *'view'* embraces different dimensions, such as expectations, priorities or desires, and we have therefore used the term *'view'* in this study (18).

## METHODS

### *Development of the questionnaire*

A list was developed covering the important areas of the organizational aspects of a general dental practice. They were divided into five domains: **infrastructure**, including accessibility and availability of dental care; **personnel**, including patient and employee satisfaction as well as consultation with colleagues and other stakeholders; **information**, concerning information about treatments and opening hours of the practice; **finance**, including payment procedures; and **quality & safety**, concerning the use of guidelines and quality assessments in general dental practices. The selection of aspects was based on a systematic literature search and on three focus-group interviews with two patient groups ( $n = 21$ ) and one GDP group ( $n = 11$ ). The preliminary list was reduced to a list of 41 organizational aspects of a general dental practice. Two questionnaires were developed: one for patients and one for GDPs. The patient questionnaire was pilot tested in a dental practice among 50 patients. This led to some small adaptations. The questionnaire for the GDPs was tested in pilot interviews with two dental experts and three GDPs. The patients and GDPs could each score on the 41 aspects. Finally, the patients were asked about the following characteristics: age, gender, education, dental insurance and family situation. GDPs were asked about age and gender.

In the questionnaires, patients and GDPs were asked to mention the ten most important aspects out of the 41 organizational aspects for assessing a general dental practice. For a description of the patient and GDP views, we have chosen to report on the aspects ranked by at least 25% of the patients as one of the ten most important aspects (*17 of 41 aspects*).

### *Study population*

#### *Patients*

The study population ( $n = 5000$ ) consisted of patients visiting a dental practice for treatment or a dental check-up. The sampling procedure was as follows. The Netherlands is divided into 12 provinces. In each province, a stratified sample of three small cities (*less than 30,000 inhabitants*), three medium-large cities (*between 30,000 and 80,000 inhabitants*), and three large cities (*over 70,000 inhabitants*) was drawn. This procedure resulted in a list of 103 cities (*not every province in the Netherlands has cities with more than 80,000 inhabitants*). Subsequently, in each selected city, a general dental practice was randomly chosen from all general dental practices registered in that city by the Dutch Dental Association in 2008. The general dental practices were contacted by telephone to explain the purpose of the study. If a general dental practice did not want to participate, the next practice listed in the Dutch Dentist Guide 2008 for that city was approached. In order to obtain 103 participating general dental practices, we contacted 147 general dental practices. Three general dental practices

refrained from participation, so finally 100 practices participated. The general dental practices were asked to hand out the patient questionnaire to the first 50 adult patients (*aged 16 years and older and able to understand the Dutch language*) who visited the dental practice for a consultation or treatment in the third week of January 2009. Patients could complete the questionnaire at home and send it to the Radboud University of Nijmegen in a stamped addressed envelope.

### *GDPs*

In addition to the 100 GDPs participating in the patient-sample procedure, a random sample of 400 GDPs was drawn from all GDPs aged 65 years or younger registered in the Netherlands (Dutch Dental Association, 2008). In a covering letter, the GDPs were asked to participate in the study and to fill in the GDP questionnaire. After 2 weeks, a reminder was sent to the GDPs, and after 4 weeks, a new questionnaire was sent to those who had not yet responded. Finally, 54% ( $n = 216$ ) returned the questionnaire. The response rate of the GDPs in the patient-sample procedure was 87%, making an overall response rate of 61%.

### **Statistical analyses**

Differences between the two samples in percentages of answers given were tested using chi-square tests. For each question, we also examined the answers given most frequently by patients and the GDPs. The analyses were performed with SPSS, version 16.0.

## **RESULTS**

The response rates were 63% in the patient sample ( $n = 3127$ ) and 61% in the GDP sample ( $n = 303$ ), respectively. The patient sample differed with regard to gender and age compared with national figures on visiting patients in general dental practices in 2009 (**Table 1**). Males were under-represented and the 40- to 64-year age group was overrepresented in the sample. Regarding the variable city size, respondents in the patient sample in small were overrepresented compared to national data (*difference of 10.7%*) and underrepresented in large cities (*difference of 16.0%*). For the variable age, the oldest age group was overrepresented in medium large cities (*18.9% vs. 13.4% in small cities and 12.1% in large cities*) whereas the age group 20-39 years was underrepresented in medium large cities (*20.7% vs. 25.5% in small cities and 25.2% in large cities*) (not in table). Of the GDPs in the sample, 72.8% were male. The gender and age distribution was comparable with national figures of Dutch dentists.



**Table 1: Patient and GDP samples and national figures: percentages of total**

		<b>Patients (N = 3127)</b>	<b>Visiting patients*</b>	<b>GDPs (N =303)</b>	<b>Dutch Dentists**</b>
Gender	<i>Male</i>	41.1	47.4	72.8	69.1
	<i>Female</i>	58.9	52.6	27.2	30.9
Age (years)	<i>&lt;20</i>	1.3	5.9	0.0	0.0
	<i>20-39</i>	23.7	31.2	22.1	29.2
	<i>40-64</i>	60.0	44.1	76.8	70.7
	<i>&gt;65</i>	15.0	18.8	1.0	0.1
City size (inhabitants)	<i>Small (&lt;30,000)</i>	42.3	31.6***		
	<i>Middle (30,000-80,000)</i>	35.6	30.3***		
	<i>Large (&gt;80,000)</i>	22.1	38.1***		

\* Percentages of patients attending a general dental practice once a year (2009)

\*\* National data of general dental practitioners (2009)

\*\*\* Average percentages of inhabitants in small, middle, and large cities in the Netherlands

**Table 2** shows the ranking of the 17 organizational aspects mentioned by at least 25% of the patient respondents as the ten most important aspects to assess a general dental practice. The GDPs ranked 11 of these 17 aspects as less important than the patients. For 11 aspects, the percentages of the ranking were lower as well. The aspects with the largest differences in rank order (*more than 10 places*) were a '*system for the check-up of perishable goods*', '*routine oral examination reminder*', and '*open in the evening and/or in the weekend*'.

**Table 2: Ranking and percentages (%) mentioned by patients and GDPs as one of the ten most important organizational aspects to assess a general dental practice.**

<b>Patient</b>	<b>GDP</b>	<b>Questions (aspects)</b>
<b>Ranking (%)</b>	<b>Ranking (%)</b>	
<b>1 (76.5)</b>	<b>2 (73.2)</b>	When you call a practice, how long should it take before the phone is answered?
<b>2 (61.9)</b>	<b>1 (74.3)</b>	Do you think it is desirable that a GDP should take refresher courses?
<b>3 (57.0)</b>	<b>3 (59.1)</b>	Do you prefer a Dutch-speaking GDP?
<b>4 (54.8)</b>	<b>6 (48.6)</b>	What waiting time is acceptable when you have an appointment?
<b>5 (54.3)</b>	<b>4 (56.0)</b>	Through what media should information about treatments be available?
<b>6 (51.7)</b>	<b>8 (4.05)</b>	Within what time should it be possible to make an appointment?
<b>7 (43.0)</b>	<b>13 (33.5)</b>	On which treatments do you prefer a guarantee?
<b>8 (41.4)</b>	<b>14 (30.7)</b>	Should the dental practice undertake a quality assessment?
<b>9 (37.7)</b>	<b>29 (10.9)</b>	Should the dental practice have a system for the check-up of perishable goods?
<b>10 (34.6)</b>	<b>7 (46.3)</b>	Do you prefer the treatment by the same dental worker?
<b>11 (33.5)</b>	<b>18 (23.0)</b>	Should the dental practice offer different specialties (orthodontist, etc.)?
<b>12 (29.6)</b>	<b>12 (36.6)</b>	Should it be clear in the dental practice who executes which tasks?
<b>13 (28.3)</b>	<b>5 (49.9)</b>	Should the GDP work according to the professional standard?
<b>14 (27.4)</b>	<b>23 (17.9)</b>	What information should be on a dental bill?
<b>15 (26.9)</b>	<b>27 (13.2)</b>	Do you think it is desirable that you receive a routine dental appointment reminder?
<b>16 (26.0)</b>	<b>36 (3.5)</b>	Would you prefer it if the dental practice was also open in the evening and/or in the weekend?
<b>17 (25.0)</b>	<b>19 (21.4)</b>	Within how many kilometers do you prefer the practice to be physically accessible?

**Table 3** shows the percentages of respondents answering per aspect. For almost all aspects, significant differences in percentages of answers given by patients and GDPs existed ( $P < 0.05$ ), except for the aspects 'Dutch-speaking GDP' ( $P = 0.12$ ), 'information about treatments via internet' ( $P = 0.11$ ), 'guarantee on restorations' ( $P = 0.30$ ), 'information about the treatment on the dental bill' ( $P = 0.90$ ), and 'routine oral examination reminder' ( $P = 0.08$ ). In **Table 3**, those answers per aspect mostly mentioned by patients and GDPs (in %) are highlighted bold. For most aspects, patients and GDPs showed agreement in answering category of first choice. They differed on six aspects: 'information about treatments' (written and oral); 'appointment for a routine oral examination'; 'specialties in dental practice'; 'information on dental bill' (payment procedure and name professional); and 'practice accessibility'.

**Table 3: Patient and GDP views on the organizational aspects of a general dental practice.**  
**The answering category given most frequently is highlighted in bold.**

<b>Aspect</b>		<b>Patients (%)</b>	<b>GDPs (%)</b>	<b>P</b>
<b>Accessibility by telephone</b>	<i>Immediately</i>	5.1	2.0	<b>**</b>
	<i>Within 15 seconds</i>	20.6	32.9	
	<i>15-30 seconds</i>	<b>30.1</b>	<b>36.5</b>	
	<i>30-60 seconds</i>	28.9	21.3	
	<i>More than 60 seconds</i>	4.5	3.3	
	<i>Does not matter</i>	10.8	4.0	
<b>Refresher courses GDP</b>	<i>Yes, 0-8 hours per year</i>	5.4	4.3	<b>**</b>
	<i>Yes, 8-24 hours per year</i>	17.5	29.8	
	<i>Yes, 24-40 hours per year</i>	10.6	21.2	
	<i>Yes, over 40 hours per year</i>	3.5	6.6	
	<i>Yes, any length is ok</i>	<b>62.4</b>	<b>37.7</b>	
	<i>No</i>	0.7	0.3	
<b>Dutch-speaking GDP</b>	<i>Yes</i>	<b>97.7</b>	<b>98.7</b>	0.12
	<i>Does not matter</i>	2.2	1.0	
	<i>No</i>	0.1	0.3	
<b>Waiting times</b>	<i>No waiting time</i>	1.4	2.3	<b>**</b>
	<i>1-5 minutes</i>	18.5	22.2	
	<i>6-10 minutes</i>	<b>48.3</b>	<b>34.4</b>	
	<i>11-15 minutes</i>	25.5	31.5	
	<i>16-20 minutes</i>	5.9	8.6	
	<i>More than 20 minutes</i>	0.5	1.0	
<b>Information about treatments</b>	<i>Written (y/n)</i>	48.0/ <b>52.0</b>	<b>72.9</b> /27.1	<b>**</b>
	<i>Via internet (y/n)</i>	37.2/ <b>62.8</b>	41.9/ <b>58.1</b>	0.11
	<i>Oral (y/n)</i>	48.7/ <b>51.3</b>	<b>80.5</b> /19.5	<b>**</b>
<b>Appointment for routine oral examination</b>	<i>Immediately</i>	0.4	0.0	<b>**</b>
	<i>The same day</i>	1.0	2.3	
	<i>Within 2 days</i>	4.4	1.3	
	<i>Within 1-2 weeks</i>	<b>42.4</b>	36.4	
	<i>Within 2-4 weeks</i>	40.7	<b>52.3</b>	
	<i>More than 4 weeks</i>	11.1	7.6	
<b>Appointment for broken tooth</b>	<i>Immediately</i>	1.8	1.7	*
	<i>The same day</i>	9.7	11.6	
	<i>Within two days</i>	<b>47.6</b>	<b>51.3</b>	
	<i>Within 1-2 weeks</i>	35.4	32.1	
	<i>Within 2-4 weeks</i>	4.8	3.3	
	<i>More than 4 weeks</i>	0.7	0.0	
<b>Appointment for pain complaints</b>	<i>Immediately</i>	23.0	14.2	<b>**</b>
	<i>The same day</i>	<b>60.4</b>	<b>78.5</b>	
	<i>Within two days</i>	16.2	6.0	
	<i>Within 1-2 weeks</i>	0.4	0.3	
	<i>Within 2-4 weeks</i>	0.0	1.0	
	<i>More than 4 weeks</i>	0.0	0.0	
<b>Guarantee</b>	<i>Restoration (y/n)</i>	<b>61.4</b> /38.6	<b>64.4</b> /35.6	0.30
	<i>Crown (y/n)</i>	<b>80.4</b> /19.6	<b>69.3</b> /30.7	<b>**</b>
	<i>Prosthesis (y/n)</i>	<b>69.5</b> /30.5	<b>57.4</b> /42.6	<b>**</b>

\* Statistically significant ( $P 0.05 \leq 0.001$ ).

\*\* Statistically significant ( $P < 0.001$ )

Table 3. Continued

Aspect		Patients (%)	GDPs (%)	P
Quality assessment				**
	Yes, once	2.9	4.5	
	Yes, once per 6 months	6.3	0.7	
	Yes, at least every year	36.8	9.2	
	Yes, at least every 2 years	<b>47.7</b>	<b>45.2</b>	
	Does not matter	4.5	21.6	
	No	1.8	18.8	
Check-up of perishable goods				**
	Yes	<b>97.0</b>	<b>83.8</b>	
	Does not matter	2.5	8.9	
	No	0.5	7.3	
Treatment by GDP				**
	Yes, by the same person	<b>74.2</b>	<b>68.1</b>	
	No, but with the same education	8.9	4.4	
	No, but the same treatment concept	10.5	21.8	
	Does not matter	5.5	3.4	
	No	1.0	2.3	
Specialties in dental practice				**
	Yes	<b>41.1</b>	22.3	
	Does not matter	40.0	29.9	
	No	18.9	<b>47.8</b>	
Execution of tasks				**
	Yes	<b>70.8</b>	<b>89.4</b>	
	Depending the situation	26.2	10.0	
	No	3.0	0.7	
Use of professional standard				**
	Yes	<b>58.0</b>	<b>82.1</b>	
	What is the professional standard?	41.5	17.5	
	No	0.6	0.3	
Information on dental bill				
	Treatment (y/n)	<b>95.2/4.8</b>	<b>95.4/4.6</b>	0.90
	Date (y/n)	<b>76.4/23.6</b>	<b>96.0/4.0</b>	**
	Amount (y/n)	<b>85.9/14.1</b>	<b>96.7/3.3</b>	**
	Payment procedure (y/n)	47.9/ <b>52.1</b>	<b>91.4/8.6</b>	**
	Name professional (y/n)	38.8/ <b>61.2</b>	<b>51.8/48.2</b>	**
Routine oral examination reminder				0.08
	Yes	<b>61.4</b>	<b>58.9</b>	
	Does not matter	20.5	17.8	
	No	18.1	23.2	
Opening in the evening and/or weekend				**
	Yes, only in the evening	15.2	3.7	
	Yes, only in the weekend	5.5	0.7	
	Yes, in the evening and in the weekend	18.4	4.7	
	Does not matter	16.5	7.0	
	No	<b>44.4</b>	<b>84.0</b>	
Practice accessibility				**
	Less than 2 km	14.3	1.0	
	2-5 km	<b>39.9</b>	11.3	
	5-10 km	27.4	20.0	
	More than 10 km	2.9	7.7	
	Does not matter	15.5	<b>60.0</b>	

\* Statistically significant ( $P 0.05 \leq 0.001$ ).\*\* Statistically significant ( $P < 0.001$ ).

## DISCUSSION

With this study, we aimed to answer two questions: (1) Which views do patients and GDPs have on the organizational aspects of a general dental practice? (2) Which views on the organizational aspects do patients and GDPs have in common and in which aspects do they differ?

For this purpose, two questionnaires were developed and handed out to 5000 patients and sent to 500 GDPs. The response rates were 63% (*patients*) and 61% (*GDPs*). This good response probably reflected the involvement of both patients and GDPs on the topic of this study.

### ***Limitations***

The questionnaires intended to assess the views of patients and GDPs. As mentioned in the introduction, we use the term '*view*'. We do not know if patients and GDPs had different perceptions of the term '*view*'. Instruments for assessment of patient and GDPs views should ideally be validated to ensure that the tools measure what they are intended to measure. In our study, the aspects were selected on the base of literature studies (19, 20). Additionally, patients and GDPs had been consulted regarding the selection and description of the relevant aspects and the preliminary questionnaires were pilot tested. A questionnaire with established validity would have been preferable, but to our knowledge, in dentistry, no research on the organizational aspects of general dental practices by questionnaires has been carried out.

As shown in **Table 1**, the patient sample with respect to gender and age differed compared with national data of visiting dental patients. We do not know the exact cause of this difference. Additionally, respondents living in small cities were overrepresented. The gender distribution differed not statistically within the different city sizes. In medium-large cities, respondents from the oldest age group were overrepresented. Detailed inspection looking into the various strata showed that for all outcomes differences between subgroups were never larger than 5 percent points. Combining the restricted over- and underrepresentation of several strata in the sample and the limited effect of age, gender and urbanization on the outcomes, the presentation of results on an aggregate level, as opposed to presentation per stratum, was deemed to be the most efficient representation of the results of this study.

### ***General outcomes***

Most outcomes differed significantly between patients and GDPs. Due to the large number of respondents, even small differences between patients and GDPs will turn out to be statistically significant. Therefore, we discuss the answers given most by both respondent groups.

Although, for most aspects, patients and GDPs showed great similarity, for the category of first choice, the differences in the percentages of the answer given most frequently of the two groups could be large. Some other outcomes are noteworthy. These outcomes will be discussed.

On the whole, patients are very considerate of GDPs. Patients were asked to answer the questions in an *ideal* situation. However, they answered the questions realistically. For instance: only a small percentage wanted the telephone to be answered directly, did not want any waiting time, or wanted to have an appointment immediately.

Generally, GDPs are stricter about aspects involving medical technical dental care and those involving accessibility, such as questions concerning '*accessibility by telephone*', '*refresher courses*', and '*making appointments for a broken tooth or pain complaints*'. The reason for this could be that GDPs have an intrinsic motivation to help patients the best they can. In addition, GDPs can judge the urgency of a treatment better than patients.

It is also remarkable that GDPs are more reluctant than patients about the '*controlling*' aspects, such as '*guarantee on treatments*', '*quality assessment systems*', and '*check-up systems for perishable goods*'. GDPs have an autonomous profession and probably set norms themselves.

It is noteworthy that patients and GDPs do not prefer 'opening hours in the evening and/or in the weekend'. Both groups answered this question with a 'no' the most, but the difference between the patients (44.4%) and GDPs (84.0%) was substantial. The out-of-hours emergency services are well organized in the Netherlands, but GDPs are not willing to extend their regular (non-emergency) hours. An explanation for the findings in our study could be that in the Netherlands there is a shortage of GDPs, and most dental practices have enough patients, so there is no economical urge to extend the service hours. A second explanation could be that in the Netherlands, most employees are given the opportunity to visit a GP or GDP during working hours.

It is also remarkable that almost half the patients do not prefer the practice to be open in the evening and/or weekend. We would have expected that more patients would prefer the dental practice to offer extended opening hours.

### **Relevance**

The outcomes of this study give the GDPs insight into the views of patients and their colleagues on a dental-practice level. A GDP can use these outcomes to adapt his/her practice to those views. For example, to obtain more satisfied patients, a GDP could send his/her patients a routine dental appointment reminder.

On a policy level, the outcomes of this study can be used for the selection of information. General dental practices will have to publish on the internet according to the new patient legislation. Aspects such as information about treatment, dental bill, or contact information (*for example telephone number and address information*) are expected to become mandatory for practices in the near future (21).

This study could be helpful for the development of guidelines. In health care, guidelines can be evidence-based or consensus-based. Evidence-based guidelines are mostly used in clinical settings, whereas consensus-based guidelines are mostly used in non-clinical settings (5). For consensus-based guidelines, patient and professional preferences are essential, and give insight into the consensus about the subject. The findings of this study give an indication of the views of both patients and GDPs.

## **CONCLUSION**

This study demonstrates that patients and GDPs have different views on almost all organizational aspects of a general dental practice. Although the differences in the operationalization may be statistically significant, patients and GDPs mentioned the same category most often.

GDPs could use this information to adjust their practice more to the needs of their patients. At the same time, policy makers and dental organizations could use the outcomes of this study for the development of quality assessment instruments, patient information tools or guidelines.

# 3

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# Chapter 4

## **The estimation of patients' views on organizational aspects of a general dental practice by general dental practitioners: a survey study**



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## Abstract

### **Background**

*Considering the changes in dental health care, such as the increasing assertiveness of patients, the introduction of new dental professionals, and regulated competition, it becomes of increasing importance that general dental practitioners (GDPs) take patients' views into account. The aim was to compare patients' views on the organization of dental care with those of GDPs and with GDPs' estimation of patients' views.*

### **Methods**

*In a survey study, patients and GDPs provided their views on the specific organizational aspects of a general dental practice. In a separate study, GDPs were invited to estimate patients' views on 22 organizational aspects.*

### **Results**

*For 5 of the 22 aspects, patients and GDPs had the same views, and GDPs estimated patients' views reasonably well: 'accessibility by telephone', 'Dutch-speaking GDP', 'guarantee on treatment', 'treatment by the same GDP', and 'reminder of routine oral examination'. For 2 aspects ('quality assessment' and 'accessibility for disabled patients') patients and GDPs had the same standards, although the GDPs underestimated the patients' standards. Patients had higher standards than GDPs for 6 aspects and lower standards than GDPs for 8 aspects.*

### **Conclusion**

*On most aspects GDPs and patient have different views, except social desirable aspects. Given the increasing assertiveness of patients, it is startling only half the aspects of the patients' views were estimated GDPs correctly. Further research is recommended on the organizational aspects in dentistry and how this can have a solid structure in professionalism.*

# 4

## BACKGROUND

In the Netherlands, general dentistry is a health care sector which is comparable in size to primary medical care in terms of costs (1) and numbers of patients (2, 3). While much research has been conducted concerning the organization of primary medical care (4-7), research with regard to organizational aspects of a general dental practice is scarce. In the Netherlands, several organizational changes in dental care can be observed in recent years. Firstly, clinical tasks are increasingly being delegated from general dental practitioners (*GDPs*) to other health care professionals (8, 9). Secondly, the number of GDPs per dental practice continues to increase (10). Thirdly, the structural context has changed. New health laws will be introduced (11) together with the implementation of market competition in dental health care. In order to respond to these changes, GDPs are legally obliged to be more transparent by providing information about the quality of their performance to support patients to make informed choices (12). Although GDPs are supposed to meet those preferences, insight by GDPs in the preferences of patients to support decision-making is lacking (13).

In recent years, the Dutch government has launched the “Visible Care” program (14) in order to increase transparency in health care. The Visible Care program seeks to provide patients with (1) medical information concerning the safety, efficiency, efficacy, and patient-centeredness of health care, (2) information concerning organizational aspects of health care, such as information on opening hours and accessibility; and (3) survey patients’ experiences with the health care delivered, measured with the Consumer Quality index (*CQ-index*), which is based on the American CAHPS (*Consumer Assessment of Health care Providers and Systems*) questionnaire and Dutch QUOTE (*Q*uality *O*f care *T*hrough the patient’s *E*yes) instrument (15).

As part of the Visible Care Program, this study explores the views of patients and GDPs on organizational aspects of a general dental practice. Research in primary medical care showed that patients and physicians have similar views about preferences on the medical practice care and physicians could assess patients’ preferences reasonably well (16). The aim of this study was to examine whether GDPs adequately can estimate the views of patients with respect to a number of organizational aspects of a general dental practice.

## METHODS

### *Design*

Two survey studies were combined. In the first study, a questionnaire was developed for assessing the views of patients and GDPs on a number of organizational aspects of a general dental practice. This questionnaire was developed after reviewing the research literature and was based on aspects used in the International Organization for Standardization (ISO) 9001, the Dutch HKZ model (*which is comparable with ISO, translated to the Dutch health care*) (17, 18), and the European Practice Assessment instrument (19, 20). A set of 169 organizational aspects was initially composed. The combined list was rated with respect to usefulness and overlap. Next, several aspects were clustered at a higher aggregation level and made operational.

The questionnaire was rated by participants in three focus group meetings on usefulness, relevance and clarity (*two consisting of 8 and 13 patients respectively and one consisting of 11 GDPs*). This resulted in a questionnaire consisting of 39 questions, containing a list 41 organizational aspects of a general dental practice. The aspects were divided into five domains (19):

- (I) infrastructure;
- (II) staff;
- (III) information;
- (IV) finance; and
- (V) quality and safety.

The questions had different multiple choice categories, reflecting possible standards for a specific organizational aspect. For example, respondents were asked how soon the telephone should be answered when they call a dental practice or whether they preferred a reminder for a routine oral examination. The answering categories are shown in **Table 2**. A final question was added to document the 10 most important aspects (*out of the 41*) for assessing a general dental practice. Two questionnaires were developed: one for patients and one for GDPs. Finally, the patient questionnaire was pilot tested among 50 patients in a general dental practice, resulting in small refinements. In the second survey study, a questionnaire was developed for GDPs based on the questionnaire in the first survey. The questions were reworded, for example: *"What do you think the patient prefers?"* GDPs estimated what percentage they thought the patient would give for each category. For example, a GDP estimated that 15% of the patients would have answered the first answering category; 30% the second category; 40% the third category; and 15% the last answering category. In total, the answers added up to 100%. To avoid large time constraints when filling in the questionnaire, in the second study, we decided to only ask the GDPs about the top 20 aspects from the first study, resulting in 22 questions: the aspect *'making*

*appointments'* was divided into 3 types of appointments, see additional file 1: questionnaire GDPs' estimation of patients. To summarize, each question was asked 3 times: to patients; to GDPs; and, in reworded format, to GDPs who give their estimation of the patients' views.

### ***Study populations***

In the first study, the questionnaire was sent to 5000 dental patients divided over 100 general dental practices, which had been selected at random. Each GDP handed out the questionnaires to the first 50 patients visiting the practice during the assigned period. After 2 weeks, the GDPs sent a reminder to these patients. The GDPs were asked to fill in the GDP questionnaire as well. In addition to the GDPs participating in the patient study, a representative sample of 400 GDPs was sent a questionnaire. If the GDPs did not respond, a reminder was sent after 3 weeks and if there was still no response after 5 weeks, the questionnaire was sent again. In the second study, a representative sample of another 400 Dutch GDPs was drawn (GDPs participating in the first study were excluded from the second study). The reminder procedure for non-responders was the same as that used in the first study.

Because no medical data or personal information of respondents was used, the study did not need an ethical approval.

### ***Analyses***

The results of the first and second survey were combined for analyses. Frequency distributions were calculated using the statistical package SPSS, version 16.0.

In this article, we focus on differences in views of patients and GDPs' estimation of patients' views. Difference between patient views and the estimation by GDPs of these views, can be either towards the views of the GDPs themselves, or in the opposite direction. To allow this analysis, the views of GDPs, although not subject of study here, are presented as well.

For the analyses of the GDPs' estimation of patients' views, we categorized the findings as follows: (1) GDPs estimated the patients' views well and the patients' views were similar to those of the GDPs; (2) GDPs estimated the patients' views well, but the patients' views differed from those of the GDPs; (3) GDPs estimated the patients' views poorly, but the patients' views were the same as those of the GDPs; and (4) GDPs estimated the patients' views poorly and the patients' views differed from those of the GDPs.

For the estimation, we examined the distribution of the answering categories of the GDPs' estimation of patients' views and compared this with the answering categories

of the patients and GDPs. If an answering category of patients' views and GDPs' estimation of patients' views differed by more than 10%, we concluded the aspect to be answered differently.

In case the aspect was judged differently, we compared the answers given by analyzing at the stringency of preferences. We presume that GDPs overestimate the views of the patients if the GDPs tend to expect patients to select answering categories which demand a larger effort of a dental practice. For example: longer opening hours, shorter waiting times, or longer continuing education.

## RESULTS

**Table 1** shows the characteristics of the patient sample and the samples of GDPs in the first and second study compared with Dutch national data. Among the patients, the response rate was 63% (n = 3127); 41% was male and 59% was female. The largest group was aged 40–64 years (60.0%).

The response rate of the GDPs was 61% in the first study and 30% in the second study. 72.8% and 66.1% of the GDPs were male in the first and second study, respectively. The age distribution of GDPs in both samples did not differ significantly compared with national data.

**Table 1. Characteristics of patients and GDPs in the first and second study compared with Dutch national data.**

	<i>Patients</i>	<i>National data patients</i>	<i>1st study GDPs</i>	<i>2nd study GDPs</i>	<i>National data GDPs</i>
<b>Gender</b>					
<i>Male</i>	41.1	47.4	72.8	66.1	69.1
<i>Female</i>	58.9	52.6	27.2	33.9	30.9
<b>Age (years)</b>					
<20	1.3	5.9	0.0	0.0	0.0
20-39	23.7	31.2	22.1	30.0	29.2
40-64	60.0	44.1	76.8	68.2	70.7
>65	15.0	18.8	1.0	1.8	0.1

**Table 2** shows the results of the study. For the majority of the aspects, the respondents mentioned the same answering category the most. For 5 aspects, patients and GDPs did not mention the same answering category the most (*in the domain infrastructure: 'availability of an appointment for a routine oral examination', 'practice accessibility', and 'parking spaces'; in the domain staff: 'specialties in dental practice'; and in the domain quality and safety: 'protocols and guidelines'*), and for 4 aspects, patients had a different highest answering category than the GDPs' estimation of patients' views (*in the domain infrastructure: 'practice accessibility' and 'opening hours in the evening and/or weekend'; in the domain staff: 'specialties in dental practice'; and in the domain quality and safety: 'quality assessment'*).

Based on the outcomes presented in **Table 2**, **Table 3** shows a summary of the GDPs' estimations compared to the views of patients. For only 4 aspects, there was consensus between the views of patients, the views of GDPs and GDPs' estimated views of patients. For 4 aspects, the GDPs' estimation of patients' views was correct; however, the GDPs set higher standards than the patients. For only 1 aspect the GDPs underestimated the patients' views ('accessibility for disabled patients') while the views of patients and GDPs were similar; GDPs believed patients to have less strict standards than is the case: GDPs underestimated patients' views on 4 aspects ('practice accessibility', 'parking spaces', 'check-up perishable goods', and 'quality assessment') while the patients had higher standards than the GDPs and underestimated on 1 aspect ('availability of an appointment for a broken tooth') while the patients had lower standards than GDPs. GDPs overestimated patients on 6 aspects ('availability of an appointment for routine oral examination', 'in-office waiting times', 'opening hours, accessibility by telephone', continuing education GDP', and 'information on tasks of staff').



**Table 2. Distribution (%) of the answers on the organizational aspects of a general dental practice given by patients, by GDPs' estimation of patients' views, and by GDPs.**

<b>Rank (domain)</b>	<b>Aspect</b>	<b>Patients</b>	<b>GDPs' estimation</b>	<b>GDPs</b>
<b>1</b>	Accessibility by telephone			
<b>(I)</b>	<i>directly</i>	5.1	10.5	2.0
	<i>within 15 sec</i>	20.6	25.7	32.9
	<i>15-30 sec</i>	30.1	37.0	36.5
	<i>30-60 sec</i>	28.9	18.2	21.3
	<i>more than 60 sec</i>	4.5	3.5	3.3
	<i>does not matter</i>	10.8	5.1	4.0
<b>2</b>	Continuing education dentist			
<b>(II)</b>	<i>yes, 0-8 hours</i>	5.4	7.9	4.3
	<i>yes, 8-24 hours</i>	17.5	19.1	29.8
	<i>yes, 24-40 hours</i>	10.6	22.0	21.2
	<i>yes, more than 40</i>	3.5	11.6	6.6
	<i>yes, but any length is ok</i>	62.4	36.8	37.7
	<i>no</i>	0.7	2.6	0.3
<b>3</b>	Dutch-speaking dentists			
<b>(V)</b>	<i>yes</i>	97.7	91.3	98.7
	<i>does not matter</i>	2.2	7.3	1.0
	<i>no</i>	0.1	1.4	0.3
<b>4</b>	In office waiting times			
<b>(I)</b>	<i>none</i>	1.4	9.0	2.3
	<i>1-5 min</i>	18.5	28.1	22.2
	<i>6-10 min</i>	48.3	33.0	34.4
	<i>11-15 min</i>	25.5	19.9	31.5
	<i>16-20 min</i>	5.9	8.3	8.6
	<i>more than 20 min</i>	0.5	1.6	1.0
<b>5</b>	Information about dental services*			
<b>(III)</b>	<i>written</i>	48.0	42.2	72.9
	<i>internet</i>	37.2	34.8	41.9
	<i>oral</i>	48.7	51.3	80.5
	<i>does not matter</i>	18.2	15.0	11.6
<b>6.1</b>	Availability of appointments (waiting lists)			
<b>(I)</b>	<i>routine oral examination</i>			
	<i>directly</i>	0.4	3.2	0.0
	<i>same day</i>	1.0	3.9	2.3
	<i>within 2 days</i>	4.4	6.9	1.3
	<i>within 1-2 weeks</i>	42.4	55.5	36.4
	<i>within 2-4 week</i>	40.7	24.5	52.3
	<i>longer than 4 weeks</i>	11.1	6.0	7.6
<b>6.2</b>	broken tooth			
	<i>directly</i>	6.5	1.8	1.7
	<i>same day</i>	26.9	9.7	11.6
	<i>within 2 days</i>	33.7	47.6	51.3
	<i>within 1-2 weeks</i>	30.3	35.4	32.1
	<i>within 2-4 week</i>	1.7	4.8	3.3
	<i>longer than 4 weeks</i>	0.8	0.7	0.0
<b>6.3</b>	pain complaints			
	<i>directly</i>	18.4	23.0	14.2
	<i>same day</i>	61.3	60.4	78.5
	<i>within 2 days</i>	15.0	16.2	6.0
	<i>within 1-2 weeks</i>	3.7	0.4	0.3
	<i>within 2-4 week</i>	0.6	0.0	1.0
	<i>longer than 4 weeks</i>	1.0	0.0	0.0

**Table 2. Continued**

<b>Rank (domain)</b>	<b>Aspect</b>	<b>Patients</b>	<b>GDPs' estimation</b>	<b>GDPs</b>
<b>7</b>	Guarantee*			
<b>(IV)</b>	<i>filling</i>	61.4	63.5	64.4
	<i>crown</i>	80.4	72.9	69.3
	<i>prosthesis</i>	69.5	66.6	57.4
	<i>does not matter</i>	7.8	9.1	12.5
	<i>no</i>	2.2	3.4	16.5
<b>8</b>	Quality assessment			
<b>(V)</b>	<i>once</i>	2.9	11.7	4.5
	<i>every 6 months</i>	6.3	10.8	0.7
	<i>every year</i>	36.8	31.1	9.2
	<i>every 2 years</i>	47.7	30.6	45.2
	<i>does not matter</i>	4.5	14.0	21.6
	<i>no</i>	1.8	1.8	18.8
<b>9</b>	Check-up of perishable goods			
<b>(V)</b>	<i>yes</i>	97.0	82.4	83.8
	<i>does not matter</i>	2.5	13.3	8.9
	<i>no</i>	0.5	4.2	7.3
<b>10</b>	Treatment by same dental therapist			
<b>(II)</b>	<i>by the same person</i>	74.2	67.7	68.1
	<i>by someone with the same education</i>	8.9	14.3	4.4
	<i>according to same treatment plan</i>	10.5	10.0	21.8
	<i>does not matter</i>	5.5	5.1	3.4
	<i>no</i>	1.0	2.9	2.3
<b>11</b>	Specialties in dental practice			
<b>(II)</b>	<i>yes</i>	41.1	37.9	22.3
	<i>does not matter</i>	40.0	42.8	29.9
	<i>no</i>	18.9	19.3	47.8
<b>12</b>	Information on tasks of staff			
<b>(V)</b>	<i>yes</i>	70.8	83.3	89.4
	<i>does not matter</i>	26.2	13.5	10.0
	<i>no</i>	3.0	3.2	0.7
<b>13</b>	Working according to prof. standards			
<b>(V)</b>	<i>yes</i>	58.0	64.9	82.1
	<i>what is a professional standard?</i>	41.5	33.7	17.5
	<i>no</i>	0.6	1.4	0.3
<b>14</b>	Information on dental bill*			
<b>(III)</b>	<i>treatment</i>	95.2	80.3	95.4
	<i>date</i>	76.4	73.3	96.0
	<i>amount</i>	85.9	85.0	96.7
	<i>payment terms</i>	47.9	48.3	91.4
	<i>name dental professional</i>	38.8	30.4	51.8
<b>15</b>	Reminder of routine oral examination			
<b>(III)</b>	<i>yes</i>	61.4	61.8	58.9
	<i>does not matter</i>	20.5	23.4	17.8
	<i>no</i>	18.1	14.8	23.2
<b>16</b>	Opening hours in the evening and/or weekends			
<b>(I)</b>	<i>only in the evening</i>	15.2	19.2	3.7
	<i>only in the weekend</i>	5.5	8.9	0.7
	<i>evening and weekend</i>	18.4	31.0	4.7
	<i>does not matter</i>	16.5	17.8	7.0
	<i>no</i>	44.4	23.1	84.0

**Table 2. Continued**

<b>Rank (domain)</b>	<b>Aspect</b>	<b>Patients</b>	<b>GDPs' estimation</b>	<b>GDPs</b>
<b>17</b>	Practice accessibility			
<b>(I)</b>	<i>less than 2 km</i>	14.3	16.6	1.0
	<i>2-5 km</i>	39.9	28.7	11.3
	<i>5-10 km</i>	27.4	32.8	20.0
	<i>more than 10 km</i>	2.9	7.1	7.7
	<i>does not matter</i>	15.5	14.9	60.0
<b>18</b>	Accessibility for disabled patients			
<b>(I)</b>	<i>yes</i>	88.2	66.3	86.8
	<i>does not matter</i>	9.3	23.3	6.6
	<i>no</i>	2.5	10.4	6.6
<b>19</b>	Parking spaces			
<b>(I)</b>	<i>does not matter</i>	23.9	26.3	13.6
	<i>1-2 places</i>	23.0	32.3	51.5
	<i>more than 3</i>	53.1	41.4	34.9
<b>20</b>	Working according protocols and guidelines			
<b>(V)</b>	<i>yes, always</i>	52.7	n/a	33.0
	<i>yes, but diverge considered</i>	29.4	n/a	60.3
	<i>does not matter</i>	3.8	n/a	2.0
	<i>unfamiliar with protocols and guidelines</i>	13.6	n/a	2.7
	<i>no</i>	0.6	n/a	2.0

\* More answers are possible

Domains: I, infrastructure; II, staff; III, information; IV, finance; V, quality and safety

**Table 3. GDPs' estimation of patients' standards, compared to the standards of patients and GDPs.**

	<b>GDPs estimated patients' standards well</b>	<b>GDPs underestimated patients' standards</b>	<b>GDPs overestimated patients' standards</b>
<i>GDPs and patients had the same standards</i>	Dutch-speaking GDP Guarantee Treatment by same GDP Reminder routine oral examination	Accessibility for disabled patients	–
<i>GDPs had lower standards than patients</i>	Specialties in dental practice	Practice accessibility Parking spaces Check-up of perishable goods Quality assessment	Availability of an appointment for routine oral examination In-office waiting times Opening hours
<i>GDPs had higher standards than patients</i>	Information about dental services Availability of an appointment for pain complaints Professional standards Information on dental bill	Availability of an appointment for a broken tooth	Accessibility by telephone Continuing education GDP Information on tasks of staff

## DISCUSSION

In this study, we examined the GDPs' estimation of the patients' views compared to the views of patients and GDPs on a number of organizational aspects of a general dental practice.

The response rates of the first study were reasonably good: 63% for patients and 61% for GDPs. In this study the results of two GDP samples were combined. Both samples were drawn randomly from the Dutch general dental practitioners' population. Although these samples were drawn separately, we assume that the combined results of both samples represent even better the views of Dutch GDPs on organizational aspects of general dental practices.

Compared to the first survey, the response rate in the second study was low (30%). However, a comparison of the two samples on gender and age distribution with national figures indicated a good representation of the GDPs in both studies. Nevertheless, the findings should be interpreted cautiously.

For 4 out of 22 aspects, patients and GDPs had the same views and GDPs estimated patients' views reasonably well (*'Dutch-speaking GDP', 'guarantee on treatment', 'treatment by same GDP' and 'reminder about routine oral examination'*). For one aspect (*'accessibility for disabled patients'*) patients and GDPs had the same views, but GDPs underestimated patients' views. Patients had higher standards than GDPs for 8 aspects, of which only one aspect was well estimated, and lower standards than GDPs for 8 aspects, of which 4 aspects were well estimated. In total, 9 aspects were variably well estimated by GDPs.

A correct estimation of the patients' views by GDPs was found mostly with aspects that have 'obvious' outcomes of aspects (*'guarantee on treatment'*); clear perception of the aspect for patients (*'Dutch-speaking GDP', 'availability of an appointment for pain complaints'*); and socially desirable answers (*'working according to professional standards'*). This also applied to the aspects concerning information. Information via the internet was the least popular answering category for patients, GDPs and the GDPs' estimation of patients' views. Although comparable health information on the internet is scarce (21), use of the internet will increase in the future (22). It is therefore recommended that health care providers guide patients in their internet search (23). Regarding the information on the dental bill, it was remarkable that almost one third of the GDPs believed patients expected to see the name of the dental professional on the dental bill. An explanation could be that the patient-GDP relationship is mostly a long-term relationship, and over the last 5 years, an average of 85% of the Dutch population has visited a GDP every year (3). Therefore the name would not be required on the dental bill.

It was remarkable that the views of GDPs and patients, and the GDPs' estimation of patients' views were approximately the same on the aspect 'guarantee on treatment'. The views of patients are understandable. Guarantee in health care is rare. In health care, physicians have an obligation to perform to the best of their ability and do not have a duty to achieve a performance. When some kind of guarantee is introduced in health care, this would have a large influence on the health law. However, in dental care, it is imaginable that GDPs could give a guarantee on some treatments that have predictable outcomes.

For the majority of the aspects, GDPs did not estimate the patients' views well. Overestimation of patients' views applied to only 6 aspects, 1 of which concerned appointment making. GDPs believed patients wanted to make an appointment as soon as possible, but patients felt differently. An explanation could be that 40% of dental patients are anxious about a dental treatment (24) and therefore want to postpone a dental appointment (25).

GDPs' underestimated patients' views on aspects concerning accessibility (*'accessibility for disabled patient', 'practice accessibility', and 'parking places'*), and concerning quality (*'quality assessment' and 'check-up of perishable goods'*). GDPs estimated that patients' views were less stringent than the patients' actual views, reflecting that patients have higher standards than GDPs perceive them to have. Some of these findings were supported by a study among retail clinics in the USA. These clinics are increasingly popular because they are often at a convenient location, prices are transparent and they seem to respond to the needs of the patient (26).

### ***Practice implications***

Considering the organizational changes in the field of dentistry, such as the upcoming market competition, the more central position of the patient in health care, and the more obliged transparency in health care, it is important for GDPs to know which organizational aspects of a general dental practice are important for patients and how they could operationalize these. This combined study gives answers to these questions, and GDPs could use this information in their general practice to organize the dental care more to meet the preferences of their patients. As mentioned before, there are relatively large differences between the views of patients and GDPs, and the GDPs' estimation of the patients' views. For policy makers, this information could be used for the development of guidelines, within the Visible Care program for instance. The outcomes show the aspects that will have consensus or reveal potentially conflicting areas of dental care. Looking at the aspect *'treatment by same GDP'* it can be concluded that GDPs estimate the views of patients well, and the views of patients and GDPs do not differ. The implementation of a guideline on that aspect will experience little resistance.

## **CONCLUSION**

On most aspects GDPs and patient have different views, except for social desirable aspects. Given the increasing assertiveness of patients, it is startling the GDP's estimated only half of the patients' views correctly. The findings of the study can assist GDPs in adapting their organizational services to meet more the preferences of their patients and in improving the communication towards patients.

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# Chapter 5

## Organizational aspects of dental practices: do dental students think like patients or like general dental practitioners?



*Accepted as:*

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## Abstract

### **Introduction**

*In view of transparency in health care, the widespread desire for more patient centered care, and in an attempt to facilitate educational programs that effectively respond to these changes, two research questions are formulated: i) How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and general dental practitioners (GDPs), and what prescripts, defined as specific operational responsibilities of GDPs in these matters, do dental students propose? ii) In doing so, do students resemble patients or GDPs?*

### **Methods**

*In two survey studies dental students (n = 198), patients (n = 3127), and GDPs (n = 303) were asked to rate by questionnaire the importance of 41 organizational aspects of a general dental practice and proposed specific operational responsibilities ("prescripts").*

### **Results**

*Seven out of 41 aspects were rated as important by the majority of the students. Although in a different rank order, three aspects were predominantly selected by all three groups: 'continuing education', 'accessibility by telephone', and 'Dutch-speaking GDP'. For most aspects significant differences were found between the prescripts proposed by students and those proposed by patients, and few differences were found between students and GDPs.*

### **Conclusion**

*The findings do not permit the general conclusion that the views of dental students resemble those of patients or GDPs. Looking at the overall rank order, the three respondent groups showed a great resemblance, although significant differences were found for specific aspects. With regard to the proposed prescripts, students showed realistic views and the majority wants to participate in continuing education and work with protocols and guidelines. In this, they tend to resemble GDPs more than they resemble patients.*

# 5

## INTRODUCTION

In the Netherlands, like in other European countries, health care faces societal and juridical changes. There is a growing tendency to make the delivery of health care more transparent to patients and more responsive to consumer needs and demands, instead of professionals and health authorities determining priorities in health care (1). Recently, the Dutch government launched the Visible Care program (2). This program seeks i) to provide patients with medical information concerning the safety, efficiency, efficacy and patient-centeredness of health care services, ii) to provide patients with information concerning organizational aspects of health care, and iii) to survey patients' experiences with health care delivered.

As part of the Visible Care program, the Dutch government wants all general dental practitioners (GDPs) to provide patients with information about a predetermined set of important organizational aspects of their dental practice, enabling patients to more easily compare dental practices and to choose which dental practice to visit. A previous survey examined which type of information about dental practices patients and GDPs actually consider important (3). GDPs and patients differ as to which aspects they consider important, and patients themselves also have very varied opinions.

The same societal and juridical changes also impact dental education. Dental schools have to adapt their curricula to these changes and take account of patient perspectives (4). In the dental educational literature, however, the focus is mainly on the perspectives of dental educators, dental students, or dental practitioners. Assessment methods tend to be based on practitioner evaluations of students' interactions with patients, instead of patients' own assessments of the students (5). Although efforts are made to move patients to the centre of dental education (6), patient preferences are rarely made the focus of educational programming. But as the provision of health care continues to become ever more patient-centered (7), dental schools will have to prepare students for this new patient centered paradigm. To do so effectively and efficiently requires insight in the opinions of matriculating students regarding patient preferences, changes that occur in their opinions as they move through dental school, and the factors that drive those changes. To our knowledge, no scientific dental literature is available on these issues.

It would seem most reasonable to assume that matriculating students' opinions are still very much akin to the opinions of patients, whereas graduating students are more likely to resemble GDPs. However, it is also possible that matriculating students already resemble GDPs, which is exactly why they are choosing a career in dentistry.

It is also possible, though not quite as likely, that both matriculating and graduating dental students resemble patients. Finally, it is possible that the views of dental students differ from both those of patients and of GDPs. Such differences could be indicative of changing socio-cultural patterns rather than professionalization processes during dental school. The educational interventions needed to sensitize future GDPs to the needs and interests of their patients would have to be different yet again. This raises the following research questions: i) How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and GDPs and what specific operational responsibilities of GDPs in these matters do they propose? ii) In doing so, do students resemble patients or GDPs?

## **MATERIALS AND METHODS**

### ***Materials***

Two survey studies were combined to compare the ways in which patients, GDPs, and dental students rate the importance of various organizational aspects of a general dental practice and what specific operational responsibilities of GDPs in these matters they propose (*so called "prescripts"*).

In the first survey a questionnaire, written in Dutch, was developed for patients and GDPs. Based on a literature search, the International Organization for Standardization (ISO) 9001, the Dutch HKZ model (*which is comparable with ISO, translated to the Dutch health care*) (8, 9), and the European Practice Assessment instrument (10, 11), a framework of 169 organizational aspects was compiled and assessed on overlapping aspects, double-named aspects, and usefulness for assessing a general dental practice. This resulted in a reduced list of 61 aspects. Once the questionnaire was developed, in association with a patient platform (*Zorgbelang Gelderland*), two focus groups of patients (*consisting of 8 and 13 patients respectively*) and one focus group of 11 GDPs assessed the instrument for relevance, usefulness, and clarity. This resulted in a list of 41 organizational aspects, which was pilot tested in a dental practice among 50 patients and in pilot interviews with two dental experts and three GDPs (12).

For each organizational aspect, respondents were asked to select one prescript from several possible options. At the end of the questionnaire, respondents were presented with the complete list of 41 aspects and asked to indicate the 10 most important organizational aspects to assess a general dental practice.

Following the initial design process, two separate questionnaires were developed: one for patients and one for GDPs. Questions were slightly rephrased for each target group. For example, in the questionnaire for patients the following question was asked: "*When you call a dental practice, how long should it take before the telephone is answered?*" In the questionnaire for GDPs this question was rephrased: "*When a*

*patient calls a dental practice, how long should it take before the telephone is answered?"* More detailed information about these questionnaires can be found elsewhere (3). Finally, the questionnaire for GDPs was adapted to become the questionnaire for dental students by removing irrelevant aspects such as respondents' age and the postal code of the practice location.

### ***Study populations***

In the first survey, the study populations consisted of patients visiting a dental practice, equally divided over the whole country, and their GDPs. The respondents had to be age 16 or older and able to understand the Dutch language. Aiming at a response rate of 50%, the samples had to consist of 5,000 patients and 500 GDPs at the start of the survey. The sampling procedure for patients took place as follows. The Netherlands is divided into 12 provinces. In each province, a stratified sample of three small cities (*less than 30,000 inhabitants*), three medium-to-large cities (*between 30,000 and 80,000 inhabitants*), and three large cities (*over 80,000 inhabitants*) was drawn. This procedure resulted in a list of 103 cities (*not every province has cities with more than 80,000 inhabitants*). Additionally, in each selected city, a GDP was randomly chosen from all GDPs registered with the Dutch Dental Association. The GDPs were asked to participate. Whenever a GDP did not wish to participate, the GDP listed next in the 2008 Dutch Dentist Guide for that city was approached. A standardized confirmation letter was sent to the participating GDPs ( $n = 103$ ) as well as a letter of instruction and 50 patient questionnaires and related materials. At the beginning of the study, three practitioners withdrew for different reasons, resulting in 100 participating GDPs.

The GDPs were asked to approach the first 50 patients they treated in the third week of January 2009 to participate in the survey. Two weeks after the last questionnaire was handed out, reminders to all approached patients were sent by the GDPs. During the study, no inquiries about response rates of the participating practices were given to individual GDPs. As the survey was completely anonymous, and no questions were asked about the patients' own health status or the health care delivered, approval by an Institutional Review Board/Research Ethics Committee was not necessary under Dutch law.

In addition to the 100 GDPs participating in the patient-sample procedure, a random sample of 400 GDPs was drawn and were asked to participate in the study and to fill in the GDP questionnaire. After 2 weeks, a reminder was sent to the GDPs, and after 4 weeks, a new questionnaire was sent to those who had not yet responded (3). Although the response rate of the individual GDPs was known, all data were processed anonymously.

A total of 127 first-year and 93 final-year students attending two of the three Dutch dental schools (*those in Nijmegen and Groningen*) were approached to complete the survey in February 2011. The questionnaires were filled in by the first-year students during a preclinical course and by final-year students after study group meetings or lectures. An analysis of the student samples showed that no significant differences were found in respondents' choices, by either age or study year. Hence, the results of both students groups were combined. Of the eligible first- and final-students ( $n = 220$ ) 90% participated in the survey.

### ***Statistical analyses***

Two statistical approaches were adopted to compare the importance rating of the three samples. In the first approach, Pearson's Correlations were calculated, by using the Statistical Package for Social Science (SPSS; version 16.0, SPSS Inc., Chicago, IL, USA). This calculation provides an indication of the overall correlation between the three samples. To analyse the relationship of the samples of each aspect individually, an arbitrarily chosen margin of 15% of the aspects selected by dental students was calculated. For instance, if 60% of the students selected an aspect as being in the "importance top-10", a margin for patients and GPs who chose the same aspect between  $(60-9=) 51\%$  and  $(60+9=) 69\%$  was applied. If the samples had a margin within 15%, they were considered not to be significantly different. For the comparison of the prescripts of the three samples, chi-square tests were calculated, also using the statistical package SPSS, version 16.0.

The results presented focus on those organizational aspects that were selected by at least 50% of the dental students as one of the ten most important aspects, and these are compared to the selections of patients and GPs.

## RESULTS

The response rates in the first survey of the patient and GDP samples were 63% ( $n = 3127$ ) and 61% ( $n = 303$ ), respectively. The response rate of the dental students was 90% ( $n = 198$ ) (98% and 80% for the first-year and the final-year students, respectively). The patient sample and the GDP sample revealed a comparable distribution with national figures regarding age and gender, as shown in **Table 1**. One-third of the dental students were male while the GDP sample was one-third female. According to Statistics Netherlands these figures match national figures on gender distribution of dental students (13).

**Table 1: Patient, GDP, and Student samples and national figures: percentages of total**

	<b>Patients (N = 3127)</b>	<b>Patients National*</b>	<b>GDPs (N = 303)</b>	<b>GDPs National**</b>	<b>Students (N = 198) ***</b>	<b>students National</b>
Gender						
Male	41.1	47.4	72.8	69.1	33.1	40.0
Female	58.9	52.6	27.2	30.9	66.9	60.0
Age (years)						
<20	1.3	5.9	0.0	0.0		
20-39	23.7	31.2	22.1	29.2		
40-64	60.0	44.1	76.8	70.7		
>65	15.0	18.8	1.0	0.1		

\* Percentages of patients attending a general dental practice once a year (2009)

\*\* National data of general dental practitioners (2009)

\*\*\* No age was asked to students

### Importance rating

**Table 2** shows which organizational aspects were considered by dental students, patients, and GDPs as one of the 10 most important aspects when assessing a dental practice. Seven aspects were rated as important by at least 50% of the dental students (*top 7*); six aspects by 50% or more of the patients; and four aspects were chosen by at least 50% of the GDPs. Although in a different order, three organizational aspects were included by all three groups of respondents: *'continuing education'*, *'accessibility by telephone'*, and *'Dutch-speaking GDP'*.

Looking at the aspects chosen by at least 50% of the dental students, the results show that GDPs rated the same aspects in their top-7, except that the GDPs did not include the aspect *'working according to protocols and guidelines'*; instead, the GDPs included *'treatment by the same dental therapist'*, which only a quarter of the students rated as most important. Two selected by the dental students were not included by the patients in their top 7: *'working according to the professional standard'* and *'working according to protocols and guidelines'*. Instead patients included *'making appointments'* and *'guarantee on treatments'*.

The Pearson's Correlation coefficients of the ranking of aspects between '*students and patients*' and '*students and GDPs*' were 0.822 and 0.819, respectively.

### ***Prescripts***

Figure 1 shows the prescripts advocated by dental students, patients, and GDPs for the organizational aspects rated by at least 50% of the students. The percentages of the answers regarding the aspect '*availability of information on dental services*' exceeded 100% because respondents could select more than one answering category.

In the comparison of the prescripts selected by dental students and GDPs no statistical differences were found between the aspects '*accessibility by telephone*' ( $p = 0.334$ ), '*continuing education GDP*' ( $p = 0.445$ ), '*Dutch-speaking dentist*' ( $p = 0.955$ ), '*working according the professional standard*' ( $p = 0.612$ ), '*working according to protocols and guidelines*' ( $p = 0.084$ ) and '*in-office waiting times*' ( $p = 0.428$ ). Students and GDPs significantly differed in their ratings of the aspect '*availability of information on dental services*'. '*Information via internet*' was chosen more frequently by students compared with GDPs ( $p < 0.001$ ).

In the comparison between dental students and patients similar prescripts were found regarding the aspects '*Dutch-speaking GDP*' and '*in-office waiting times*' ( $p = 0.072$ ,  $p = 0.283$ , respectively). The other prescripts significantly differed ('*accessibility by telephone*'  $p = 0.004$ ; '*continuing education*'  $p < 0.001$ ; '*working according professional standard*'  $p < 0.001$ ; '*working according protocols and guidelines*'  $p < 0.001$ ; and '*availability of information on dental services*'  $p < 0.001$ ).

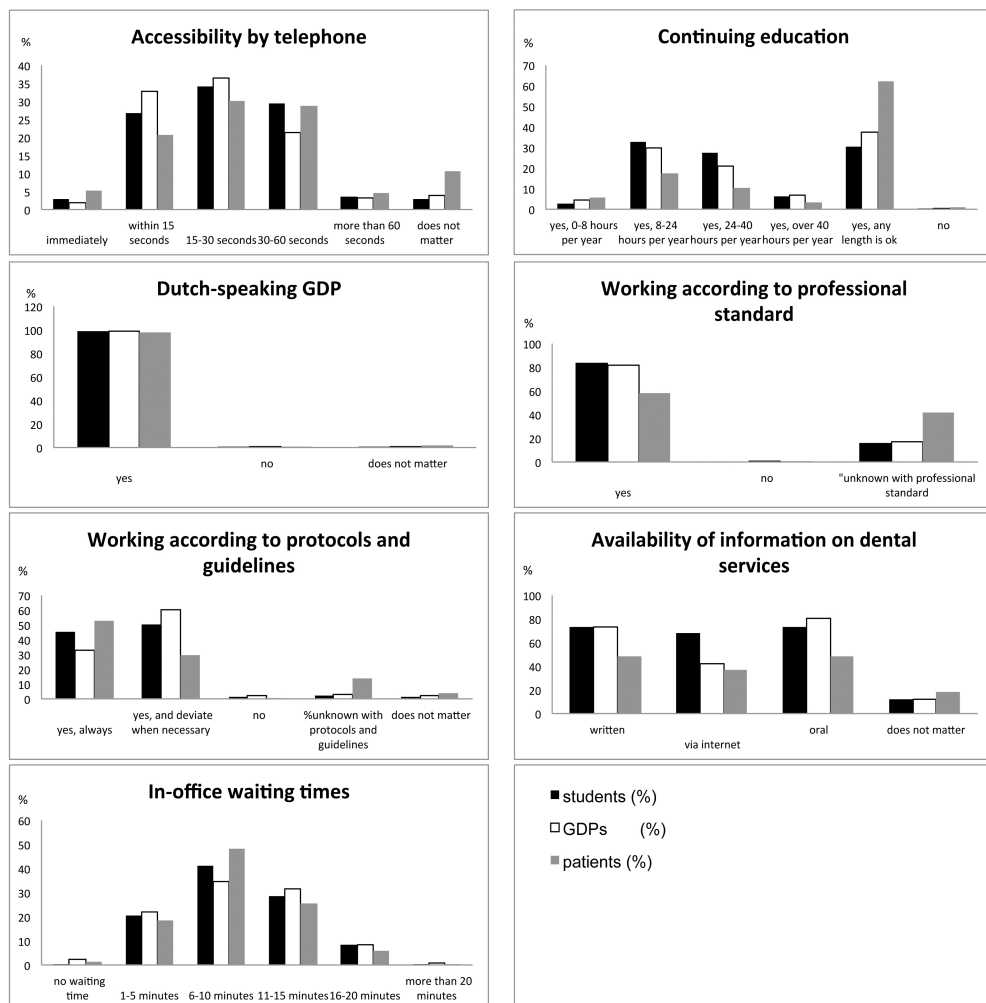
**Table 2 Importance rating and percentages of the ten most chosen organizational aspects by dental students, patients, and GDPs**

<b>Aspects</b>	<b>Students (%)</b>	<b>Patients (%)</b>	<b>GDPs (%)</b>
Continuing education GDP	1 (63.6)	2 (61.9)*	1 (74.3)
Accessibility by telephone	2 (58.6)	1 (76.5)	2 (73.2)
Dutch-speaking GDP	3 (57.6)	3 (57.0)*	3 (59.1)*
Working according to the professional standard	4 (56.1)	13 (28.3)	5 (49.4)*
Working according to protocols and guidelines	5 (55.6)	20 (20.1)	9 (38.9)
Information about dental services	6 (51.5)	5 (54.3)*	4 (56.0)*
Waiting times	7 (50.5)	4 (54.8)*	6 (48.6)*
Information on tasks of staff	8 (45.5)	12 (29.6)	12 (36.6)
Availability of appointments (waiting lists)	9 (42.9)	6 (51.7)	8 (40.5)*
Clarity on responsibilities	10 (39.9)	21 (19.1)	10 (38.9)*
Quality assessment	11 (38.9)	8 (41.4)*	14 (30.7)
Patient consultation in dental team	12 (32.3)	27 (14.9)	16 (26.5)*
System for check up of perishable goods	13 (30.8)	9 (37.7)	29 (10.9)
Information on dental bill	14 (30.3)	14 (27.4)*	23 (17.9)
Information on internet	15 (29.3)	25 (17.3)	31 (8.9)
Guarantee on treatments	16 (26.8)	7 (43.0)	13 (33.5)
Treatment by the same dental therapist	17 (24.7)	10 (34.6)	7 (46.3)
Specialties in dental practice	18 (22.7)	11 (33.5)	18 (23.0)*
Reminder of routine oral examination	19 (22.2)	15 (26.9)	27 (13.2)
Accessibility for disabled patients	20 (20.2)	18 (21.1)*	20 (21.4)*
Patient satisfaction survey	21 (18.2)	31 (9.2)	35 (4.3)
Disease diagnoses	22 (17.7)	33 (8.7)	11 (37.4)
Opening hours evening and/or weekend	23 (17.2)	16 (26.0)	36 (3.5)
Physical accessibility	24 (16.7)	17 (25.0)	19 (21.4)
Meetings of GDP with colleagues	25 (16.2)	22 (17.8)*	15 (28.8)
Waiting room facilities	26 (15.7)	23 (17.7)*	28 (13.2)
Meetings of GDP with dental technicians	27 (15.7)	29 (11.7)	17 (25.7)
Continuing education dental hygienist	28 (15.7)	24 (17.5)*	21 (19.1)
Liability assurance	29 (15.2)	26 (14.8)*	30 (9.3)
Continuing education dental assistant	30 (13.1)	28 (13.9)*	26 (13.6)*
Attending complaint committee	31 (12.6)	36 (7.5)	24 (14.4)*
Parking spaces	32 (8.6)	19 (20.5)	25 (13.6)
Employee satisfaction survey	33 (8.6)	41 (3.4)	38 (3.1)
Payment possibilities	34 (7.6)	34 (8.4)*	34 (5.4)
GDP taking part in peer supervision	35 (7.6)	30 (10.5)	22 (18.3)
Information about complaints procedure	36 (7.1)	40 (4.1)	37 (3.1)
Risk assessment	37 (7.1)	37 (5.9)	32 (7.4)*
GDP has meetings with health insurers	38 (5.6)	35 (8.1)	41 (0.8)
Receiving dental bill	39 (4.0)	32 (8.9)	33 (6.6)
Insight of health insurance company in medical records	40 (4.0)	38 (5.5)	40 (1.2)
Parking fees	41 (3.5)	39 (4.4)	39 (1.9)

\* Patients and/or GDPs mentioned an aspect equally important as dental students within a margin of 15%



**Figure 1: Prescripts of organizational aspects for assessing a dental practice chosen by at least 50% of the dental students compared with standards of patients, and GDPs**



## DISCUSSION

### *Research questions*

This study aimed to answer the following two research questions: i) How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and general dental practitioners (GDPs) and what prescripts, defined as specific operational responsibilities of GDPs, in these matters do dental students propose? And ii) In doing so, do students resemble patients or GDPs?

In this study the findings do not allow for a decisive answer to either of these two questions. In a few organizational aspects, the priorities of students, GDPs and patients are perfectly aligned. This would imply that there is no need to specifically address these issues in the already overcrowded dental curriculum. But for many other aspects, dental students' importance ratings differed significantly from patients' priorities, and were more akin to those of GDPs. Similarly, students' prescripts tended to be more like those of GDPs than those of patients. However, the findings do not permit the general conclusion that dental students resemble GDPs, for it was also found that students digress from both GDPs and patients in their prioritization on an aspect-level.

### *Major findings*

The high Pearson's Correlation between the survey samples demonstrates that the percentages of the selected aspects did not substantially differ between the three samples overall. Nevertheless, as shown in **Table 2**, the list of aspects rated by at least 50% of the patients and 50% of the GDPs as important, differed. This does not imply that those aspects are not important to patients. Some aspects can be important for specific groups of patients, e.g. physical accessibility of a dental clinic for disabled patients.

Dental students and GDPs found aspects related to the treatment, like '*working according to the professional standard*' and '*working with protocols and guidelines*', more important, while patients more often prioritized aspects concerning accessibility. This outcome was also found in the study among general practitioners by Jung et al (14).

Although the Pearson's Correlation demonstrated small differences on the overall rating, on an aspect-level, calculating a chosen 15% margin, in the top 7, four aspects in the patient sample had a margin over 15% compared to the student sample. Also four aspects in the GDP sample had a margin over 15% compared to the student sample.

In the analyses, also 10% and 20% margins were calculated. As expected, fewer aspects are selected in the 10% margin (*4 in the patient sample; 2 in the GDP sample, respectively*) and more aspects were selected in the 20% margin (*1 in the student sample and 4 the GDP, respectively*). Looking at the top 7, only 1 aspect is selected more in the 20% margin in the GDP sample. The margin-size has no major effect on the number of aspects in or out a margin. Still, considerable differences are noticed between the ratings of the three samples.

The results demonstrate that the ratings differed on an aspect-level between dental students and patients. This finding is not entirely unexpected because students, due to their education, are familiar with all kinds of aspects of a dental practice and, like GDPs, are more likely to prioritize other aspects (*such as those related to personnel of colleagues*) than patients do. More surprising is that both graduating and freshman students resemble dentists more and patients less. Then again, this may be due to the fact that freshman dental students are still very young (18-19 on average). Hence, most of the dental treatment they underwent themselves was arranged by their parents. So they did not have to worry about telephone accessibility, parking, billing issues and other such organizational aspects of dental practices. Their knowledge of the nature of dentistry appears to be shaped more by their dental education, even after only a few months, than by their personal experiences as patients.

For most aspects statistically significant differences were found between the prescripts of dental students and patients. Only small differences were found between the prescripts of students and GDPs.

Dental students, patients, and GDPs had 'realistic' views of a general dental practice: no majorities of the respondent groups expected "immediate" accessibility by telephone or "no" in-office waiting times. Surprisingly, for the aspect 'accessibility by telephone', it appears that GDPs and students preferred the telephone to be answered *sooner* than patients. For some questions, the respondent groups gave answers that were expected: all groups preferred a 'Dutch-speaking GDP'. The sample of patients consisted of respondents able to understand the Dutch language. Non-Dutch-speaking respondents were excluded. This selection of patients may have influenced the preferences with respect to the aspect 'Dutch-speaking GDP'. Students and GDPs proposed the same prescripts about continuing education. This may demonstrate that Dutch students during their years in dental school are already familiarized with the importance of life-long learning (15), reflecting, in turn, the success of the curricula in the dental schools in instilling this trait in students (16).

It was also expected that a relatively large number of patients did not know what the professional standard entails. However, it is more remarkable that almost one fifth of the GDPs and students indicated not knowing what the professional standard is, particularly since dental students on graduation take an oath promising to act as a professional which implies that they should work according to the professional standard. An explanation for the high percentage of GDPs could be that a well-described definition of the professional standard is hard to find in health care (17).

Almost all dental students and GDPs wanted to work with protocols and guidelines. Most patients preferred GDPs to work with them as well. Over half of the students and GDPs wanted to deviate when necessary. In general practice, guidelines are considered useful tools to promote evidence-based practice (18). However, in dentistry protocols are still scarce and many GDPs are not used to working with them. Most GDPs fear that working with guidelines will reduce their professional autonomy (19). This could explain why such a large number of GDPs want to deviate if necessary. Nevertheless, the Health Council of the Netherlands recently recommended the development of more guidelines in dentistry (20).

The use of internet is more popular in younger generations. Dental students are younger than the GDPs and want to provide information via internet on dental services more often than GDPs (68.2% vs. 41.9%, respectively). Likewise, in the patient group, younger patients preferred information via the internet more often than older patients, resembling other studies (21; 22). This may, however, be a temporary phenomenon for it is expected that the use of the internet will increase in the future (23) and patients will become ever more active consumers of internet based health information (24). This also applies to younger GDPs compared to older GDPs (not shown in table).

### ***Limitations***

In this study, the aspects were selected on the basis of literature studies. Additionally, patients and GDPs had been consulted regarding the selection and description of the relevant aspects and the preliminary questionnaires were pilot tested. A questionnaire with established validity would have been preferable. However, prior to this study, no research on the organizational aspects of general dental practices by means of questionnaires had been carried out.

Not all Dutch dental schools were included in the study; two out of three dental schools participated. It is assumed that the sample provides a reliable reflection of the first- and final-year dental student population in the Netherlands.

The response rates in the studies were 63% for patients, 61% for GDPs and 90% for students, respectively. The high response rate among students was the result of asking the students to complete the survey at the end of a class session; a few final-year students were missed because they were engaged in externships at the time.

### ***Recommendations***

If future generations of GDPs are expected to provide more patient-centered care, dental educators will have to make dental students more sensitive to patients' perspectives on the organization of dental care. Here, it is important to note that no differences between first year and final year students were found, both in ranking and prescripts. So it is not the case that students arrive in dental school thinking exactly like patients, but are gradually changed to resemble GDPs. Hence, dental educators cannot limit their interventions to countering the development of a professional "*bias*" while in school; instead, they have to counteract the views with which students arrive and which they retain while in dental school and beyond. If there is one clear lesson to be learned from this study, it would be that much may be gained from simply asking patients about their preferences, rather than second-guessing their priorities and expectations. Instructors of dental practice management courses may want to include exercises in which students are invited to design management plans based on actual surveys of patients rather than their own opinions or even the models they have encountered during their rotations with private practice GDPs.

### **CONCLUSION**

The findings do not permit the general conclusion that dental students resemble patients or GDPs. The overall rating of the three respondent groups showed a large resemblance while significant differences were found on an aspect-level. For the prescripts proposed, students showed realistic views and the majority wants to participate in continuing education and work with protocols and guidelines. In this, they tend to resemble GDPs more than they resemble patients.

## 5

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# Chapter 6

## GENERAL DISCUSSION







# 6

## GENERAL DISCUSSION

Dutch dental care is undergoing numerous changes. These changes either relate to health care in general, or to dental care specifically. The planned bill *"Patient's Rights Act"* obligates health care providers to provide access to different types of information (such as choice information, information about the quality of delivered care) (1). Other changes that affect health care are the centralization of the patient in the process of providing health care as well as the justification of care. In one of its reports, the Health Care Inspectorate argues that health care can no longer be as disengaged as it is right now and that the quality of health care should be made accessible (2). There are also numerous changes going on specifically within dental care. These changes affect the organization of dental care, such as an increase in the number of group practices. Another major change was the introduction of the experiment with 'market competition' (3). A central theme of these changes is "transparency".

In 2007, the Dutch Healthcare Authority conducted a market analysis in order to prepare for the decision to introduce a free market system into dental care (4). According to the conclusion of this report, dental care meets most of the requirements of a free market system. However, dental care still lacks transparency. This conclusion has been confirmed in a report by the Dutch Healthcare Authority. In this report, the Dutch Healthcare Authority recommends the development of more (clinical) guidelines for dental care (5). The Dutch Dental Association (NMT) is cooperating with the Academic Centre for Dentistry Amsterdam (ACTA) in order to produce a report called *"Program of Guidelines for Dental Care"*. The aim of this report is to translate scientific knowledge into guidelines for the daily dental practice (6).

In order to make health care more transparent, the Health Care Inspectorate, authorized by the Ministry of Health, Welfare and Sport, has started a program called "Visible Care" for numerous sectors within health care. "Visible Dental Care" forms part of this project (7).

This thesis has attempted to contribute to the process of making dental care more transparent and was used as a base for the development of information to make an informed choice for patients by the department of Preventive and Curative Dentistry of the Radboud University Nijmegen Medical Centre, developed under the authority of Visible Care. In this process, the focus is on the organizational aspects of general dental practice. Aspects that both patients and GDPs rated as very important and GDPs' ability to estimate the views of patients also play an important role in this

thesis. Moreover, the proposed specific operational responsibilities (prescripts) of these aspects were subject of the research. The prioritization and prescripts of students' answers were also taken into account in this research; after all, they are the GDPs of the future.

In light of aforementioned context, these research questions are of pivotal importance for this study:

- 1. How do patients and GDPs prioritize organizational aspects when they assess a dental practice?**
- 2. How do patients and GDPs standardize these aspects?**
- 3. Are GDPs able to properly assess the standardization of the organizational aspects of a dental practice by patients?**
- 4. Does the prioritization and standardization of organizational aspects of a dental practice by dental students resemble that of GDPs or that of patients?**

Numerous survey studies, based on questionnaires handed out to dental patients, GDPs and students, have been used in order to attempt to answer these research questions.

Before answering these research questions, this chapter will address a number of critical comments on the questionnaires and research populations that have been used. Thereafter, the most important results and conclusions will be presented and discussed. Finally, this chapter will deal with both the social context and final conclusions of this study and some final recommendations.

## **QUESTIONNAIRES**

In the context of this study, three questionnaires have been developed: one for patients, one for GDPs and one for students. The questionnaire for patients has been developed first and has served as a starting point for the development of the questionnaire for GDPs. The questionnaire for GDPs formed the basis of the questionnaire for students. In order to be able to properly compare the groups of respondents, it was necessary to use the same formation and response categories for the questions asked.

The patient questionnaire was developed in order to assess the views of patients on the organizational aspects of general dental practices. A framework of 169 organiza-

tional aspects was compiled, based on a literature search and aspects described in the International Organization for Standardization (ISO) 9001 certification method (113 aspects), adapted to the Dutch health care model (Corporation Harmonization Quality Assessment in Health care: HKZ), and the European Practice Assessment (EPA) instrument (56 aspects). The HKZ model renders quality in health care institutions assessable and sets norms, which originate from the ISO 9001 certification model. The EPA instrument is a framework for general practice management made up of quality indicators shared by six European countries (8;9).

In cooperation with a patient organization called Zorgbelang Gelderland, the draft questionnaire was then elaborately discussed in two focus group meetings with patients (8 and 13 participants) and one focus group meeting with GDPs. After taking into account the suggestions that were made in these meetings, the questionnaire was tested in a dental practice.

While conducting the research on the assessment of the standardization of patients by GDPs, the wording of the questionnaire has been adapted. For example, the question *"Within how many minutes do you think the telephone should be answered?"* was changed into: *"Within how many minutes do you think patients would like the telephone to be answered?"* (10). For the research into the prioritization and standardization of students, the questionnaire for GDPs formed the basis of the questionnaire for students but irrelevant questions for students such as the zip code of their practice and their graduation year were left out.

The questionnaires that were used in this research are based on existing questionnaires that have been adapted to fit the language used in dental care. Ideally, instruments for assessment of patients' and GDPs' views of health, e.g. questionnaires on organizational aspects of general dental practices, should be validated to ensure that the tools measure what they are supposed to measure. Although patients and GDPs have been consulted regarding the selection and description of the relevant aspects and the patient and GDP questionnaire were based on a conceptual framework, validity and reliability of the questionnaires were not tested. Furthermore, although the questionnaires were intended to measure views of organizational aspects in a perfect dental practice, we do not know exactly what this concept means to patients and GDPs. It is not possible to verify how the outcomes of the studies have been influenced by these questions.

## **RESEARCH POPULATIONS**

The research population for this research consisted of three groups: patients, GDPs and dental students. These groups have been sampled in numerous ways.

### ***Patients***

In total, 5000 patients have received a questionnaire. The sample of patients was obtained from patient records of 100 GDPs (dental practices) in large, medium and small municipalities in the Netherlands. The first 50 patients, all of whom had made an appointment for treatment in January 2009, were included in the patient survey. This method of (clustered) patient recruitment, which is beneficial to our research, has the risk that the obtained research data cannot be regarded as objective, because the answers this group of patients has given may have been influenced by experiences within the same dental practice. Still, the patients were regarded as independent entities in the analyses of our research. We have attempted to overcome the risk of obtaining subjective research data by asking patients not to give their opinion on their own GDP but to consider an 'ideal' dental practice.

In comparison to national data, patients from smaller cities were overrepresented. In large cities the oldest age category was underrepresented. The composition of the sample ordered by gender resembled the national data of dental patients. Given the limited over- and underrepresentation of the numerous personal characteristics and the limited influence of age, gender and urbanization on the results, it can be assumed that the results form a reliable representation of the opinions of Dutch dental patients. This method of sampling limits the results to opinions of patients visiting a GDP. Patients who do not attend a dental practice were not included in the study. These non-attendees can have different views. However, we assume that the overall picture of most important aspects is not heavily biased. Firstly, the majority of the Dutch adult population (85%) visited a dentist once a year (11). Hence, the non-attenders are a minority. Secondly, most persistent non-attenders are not likely to suddenly start frequenting a dental office when more information is available on the dentists' websites. For example, one of the major reasons not to visit a dentist is dental anxiety. Among the population the prevalence rates for dental anxiety occurs from 13.1% to 19.8% (12).

### ***General Dental Practitioners***

For the different investigations, three samples were drawn from the GDPs. The first involved a sample of GDPs stratified by the size of the municipalities for the benefit of the patient survey. All 100 participating GDPs were asked to complete the questionnaire for GDPs. Moreover, a random sample of GDPs was drawn twice: one for the research into the prioritization and standardization of the organizational aspects of a dental practice by GDPs and one for the research into the estimation of the

standardization of organizational aspects of patients by GDPs. The respondents from the first and second sample were given the same questionnaire. Because there were no significant differences between the samples in terms of age and gender, they were combined for the analyses. Therefore, it cannot be expected that combining these samples has influenced the results. Moreover, the third sample was found to be similar to the first two samples and to the national data of GDPs in terms of age and gender (11).

### ***Students***

The research into dental students related to two out of three dental education programs in the Netherlands. For logistical reasons, the dental education program in Amsterdam was not involved in this study. All first year and fifth year students of the other dental education programs were asked to participate.

In comparison to the composition of national data of dental students in the Netherlands, the student population of the research appears to represent, based on gender, a reasonable reflection of the student population of dental training (13). However, this does not exclude the option that not taking into account the dental students in Amsterdam has influenced the research data. Moreover, the student populations of the three dental education programs may differ in terms of other aspects, for example ethnicity. However, no data were available to confirm this.

### ***Response***

The response rate of patients was 63%. The respondents were selected by the GDP in their own dental practice. Of the 100 participating dental practices, 70 had a response rate of 60% or more. The highest response rate was 90% and the lowest response rate was 8%. Before the start of this research, the participating GDPs received a letter with information on the recruitment of patients and the distribution of questionnaires as well as reminders to send to patients two weeks after handing out the last questionnaires. They also received some more general information about the research itself. It is assumed that the majority of the participating GDPs has followed the instructions. The fact that almost three-quarters of the participating GDPs had a response rate of more than 60% seems to confirm this.

The response rate of GDPs from the first sample was higher (87%) than the response rate of the second sample (54%). The response rate of the third sample was the lowest: 30%. One possible explanation for the differences in response rates of GDPs in the different surveys may be the method used to approach GDPs. For the first sample (which had a response rate of 87%) of GDPs (dental practices) in which patients were involved in the research as well, all GDPs were approached by phone and asked to participate. If a GDP refused to participate, another GDP from the same municipality

was approached in the same way. In this way, the GDPs had already confirmed their participation over the phone. In the second and third sample, the GDPs were not approached by phone. They did, however, receive a reminder twice.

While conducting the research into the estimation of the views of patients, the difficulty of the questionnaire may have played an important role in terms of the participation rate of GDPs. It could be the case that GDPs find it hard to estimate the needs of patients (14) and that they therefore have declined to complete and return the questionnaire.

The response rate of the dental students was high (90%). This high response rate was obtained by asking first year students to fill out the questionnaire during a skills lab. Only a few final year students were not able to do so because they participated in different courses and internships, sometimes in other hospitals at various locations.

## MAJOR FINDINGS

In **chapter 2**, the aim of the study was to explore which organizational aspects are considered most important by patients when assessing a general dental practice (15).

Only six (out of 41) organizational aspects were selected by more than 50 percent of dental patients. In general, it appears that patients put more emphasis on aspects in the domain “*infrastructure*” and do not prioritize aspects concerning “*quality of dental care*”. An explanation for this could be that patients have confidence in the medical quality of (dental) care and therefore put more emphasis on the availability and accessibility of dental care. These outcomes are in line with findings in primary medical care (16). In other studies, availability and accessibility of general practice care were also rated as most important (17-19). Next, patients may believe that they are not able to assess medical technical aspects and therefore prioritize aspects regarding the availability and accessibility more often.

The aim of the study described in **chapter 3**, was to compare patients’ views (the priorities and the specific operational responsibilities, so called prescripts) on organizational aspects of general dental practices with those of GDPs.

The 10 most important aspects mentioned in the study described in **chapter 2** were used for the analyses (20). Most outcomes differed significantly between patients and GDPs: GDPs are stricter about aspects involving medical technical dental care and those involving accessibility, such as questions concerning ‘*accessibility by telephone*’, ‘*refresher courses*’, and ‘*making appointments for a broken tooth or pain complaints*’. For example, GDPs prefer an appointment for patients with a pain complaint sooner

than patients themselves. An explanation for our findings could be that GDPs have an intrinsic motivation to help patients the best they can. In addition, GDPs can judge the urgency of a treatment better than patients. Jung et al. found in their study among general practitioners (GPs) that aspects such as *'making appointments'* and *'speaking to a GP'* are more important to patients than GPs (21). It is also remarkable that GDPs are more reluctant than patients about the *'controlling'* aspects, such as *'guarantee on treatments'*, *'quality assessment systems'*, and *'check-up systems for perishable goods'*. A reason could be that GDPs have an autonomous profession and probably set norms themselves. The fear of GDPs is that implementation of guidelines will reduce their autonomy (22). This outcome was underlined in another study among GPs and patients. GPs evaluated their care more critically compared to the evaluation of their patients (9).

Based on the outcomes of **chapter 2** (priority) and **chapter 3** (prescripts), the estimation of the prescripts of patients by GDPs was subject of study in **chapter 4**. A correct estimation of the patients' views by GDPs was found mostly with aspects that have *'obvious'* outcomes; aspects which have a clear perception of the aspect for patients; and socially desirable answers. This also applied to the aspects concerning the domain information. It was remarkable that the views of GDPs and patients, as well as the GDPs' estimation of patients' views, were approximately the same with regard to the aspect *'guarantee on treatment'* (10).

For the majority of the aspects, GDPs did not estimate patients' views well. Overestimation of patients' views applied to only 4 aspects, 2 of which concerned appointment making. GDPs' underestimated patients' views on aspects concerning accessibility, availability, and quality. Given the increasing assertiveness of patients, it is striking the GDPs estimated only half of the patients' views correctly. Considering the recent drastic changes in Dutch dental care, such as the introduction of free dental fees since January 2012 and the upcoming market competition, the more central position of the patient in health care, and the more obliged transparency in health care, it is important for GDPs to know which organizational aspects of a general dental practice are most important for patients and how they could operationalize these. GDPs could use this information in their general practice to organize the dental care more to meet the preferences of their patients.

Dental students were, next to patients and GDPs, subject of the fourth research question. In view of transparency in health care, the widespread desire for more patient centered care, and in an attempt to facilitate educational programs that effectively respond to these changes, two research questions are formulated in **chapter 5** (23): i) How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and general dental practi-



tioners (GDPs) and what prescripts in these matters do dental students propose? And ii) In doing so, do students resemble patients or GDPs? A comparison was made between the views of patients, GDPs, and first and final year dental students. Differences in rating and prescripts between first and final year dental students were assumed to exist. It was expected that first year students, having completed only one semester of dental education, are more similar to patients in their assessment of the organizational aspects of a dental practice, whereas final year students think more like GDPs. Surprisingly, no statistically significant differences were found in respondents' choices, by either age or study year.

The results of the study among dental students do not decisively answer the research questions. For a few organizational aspects the priorities of students, GDPs and patients are similar (*'continuing education', 'accessibility by telephone', and 'Dutch-speaking GDP'*). This would imply that there is no need to specifically address these issues in the already overcrowded dental curriculum. But for other aspects, dental students' importance ratings differed from patients' priorities, and were more akin to those of GDPs. The same is true regarding the specific operational standards of GDPs: students' standards tend to be more like those of GDPs than those of patients. However, our findings do not allow the general conclusion that dental students resemble GDPs. The overall rating of the three respondent groups showed a large resemblance, although significant differences were found for specific aspects. With regard to the proposed prescripts, students tend to think more like GDPs than like patients.

## **IMPLEMENTATION OF THE RESEARCH**

The results of the research as described in this thesis have formed the basis of i) health insurance company CZ forming a quality section and ii) forming window-information within the program Visible Care.

### ***Health insurance company***

The results of this research have been used by health insurance company CZ in the quality section of the CZ health care agreement for established GDPs and dental practices. Due in part to these results, the quality section in this agreement has been elaborated on in the so-called "health care plus contract. This contract contains the most elaborate agreements on quality, accessibility, rewards and information on offered health care. The most important amendments that have been adopted in the quality sections of both agreements as a result of this research form the top 10 of aspects, as described in **chapter 2** (24).

### **Visible Care**

Partly in light of the free market system that was introduced in dental care, the Ministry of Health, Welfare and Sport has ordered the Health Care Inspectorate in 2009 to establish the program Visible Care in order to develop choice information for dental patients. This information consists of medical indicators, patient experiences and information on the organization of dental care (*window-information*) (7).

The studies described in **chapter 2** and **chapter 3** (15;20) have in part formed the basis of the development of this window-information (25). This research has been carried out by the department of Preventive and Curative Dentistry of the Radboud University Nijmegen Medical Centre in cooperation with the Consumers Union. The research into general dental practices was expanded to meet the wishes of patients of orthodontists, dental hygienists and dental prostheticists. Six demands that the dental sector should meet were developed specifically for the experiment with 'free pricing' that started in January 2012 (3). One of these six demands is that there should be unambiguous information available on dental practice, selection of treatment options, expertise of the health care providers active in a certain practice and prices of the offered treatments (*window-information*). This window-information has been designated by the minister as a demand that dental care should meet.

In order to implement, among others, window-information, a national query has been started in May 2012. Over 6000 dental practices (*GDPs, dental hygienists, dental prostheticists*) in the Netherlands were requested to fill in both window-information as well as quality indicators through a web-portal. Moreover, 200 patients of each practice have been asked to complete a questionnaire with regard to patient experiences. These data will be published by the independent website called Choose-Better (*KiesBeter*) as choice information (26).

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the investigations we can conclude that patients rate aspects with regard to infrastructure as important in their assessment of a dental practice, while GDPs rate aspects with regard to medical practice as important. These results of our research are, for the most part, comprehensible and logical. When the results of this research are used as choice information, it is important to make sure that the method of presenting choice information is unambiguous and that the information on (the quality of) health care is comparable for patients (27). Even though the Visible Care program has attempted to obtain comparable and unambiguous information, this information should be interpreted carefully since obtaining information about the organization and quality of care from all dental practices has not previously occurred in the Netherlands. Depending on the (quality of) this query it should be decided which information is reliable and comparable.

Even if choice information is comparable, unambiguous and accessible, it is unsure whether or not patients will actually switch GDPs. Research by Faber et al. shows that information on the quality of health care is not used that often (28). One possible explanation could be that, in addition to the aspects rated as important by patients, GDPs and students in this research, other aspects influence the choice for a particular (dental) care provider as well. Research has shown that a relationship between a health care provider and a patient that is non-optimal is the main reason for patients to switch to a different health care provider, rather than the information on the quality of delivered health care (18; 29). Moreover, financial considerations and policy of a health insurance company may also influence the choice to switch to a different GDP: financial benefits for insured patients can play a pivotal role in deciding to switch to a different GDP or a GDP that has a contractual agreement with a health insurance company due to the contractual policy of their health insurance company. Relocation is also a common reason to change dentists.

The prescripts differ between GDPs and patients. Both groups did mention the same answer categories the most. In the inquiries, they were asked about their wishes in the most ideal situation. Additional research into the current prescripts of the organization of a dental practice, for example by means of patient experience surveys, is recommended. In this way, the current prescripts can be compared with the wishes of patients and GDPs and this can provide insights into any short-comings. GDPs can adapt the health care they deliver if necessary.

Most GDPs do not estimate the views of most aspects by patients very well. With regard to four aspects we could perceive overestimation of the standardization of patients, two of which related to making appointments. GDPs underestimate aspects relating to accessibility, availability and quality. This research provides GDPs with insight into the needs of patients with regard to the organizational aspects of a dental practice. GDPs can use this information to adapt their practice to patient wishes. We can draw the conclusion that there is no difference between first year and final year dental students with regard to both the prioritization and the prescripts of the organizational aspects of a dental practice. No significant differences were found with regard to prioritization in the comparison between the prioritization and prescripts by dental students and that of patients and GDPs. The prescripts, however, differ: with regard to this, dental students resemble GDPs more than they resemble patients. Given the fact that there are no differences between first year and final year students, it should be recommended to let patient perspective play a more significant role from the first year of a dental education program onwards. This may lead to more 'future' GDPs that offer patient-central care, which in turn may possibly lead to (even) more satisfied patients.

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# Chapter 7

## SUMMARY





# 7

## SUMMARY

### BACKGROUND

Both health care and dental care in the Netherlands have been subject to numerous changes over the last decades. A number of social and judicial developments form the basis of these changes. The first development, which took place during the nineties of the last century, is the strengthening of the role of the patient within legislation. These laws serve, not only directly but indirectly as well, both to improve the quality of health care as well as to give the patient a central position. Moreover, the organization of dental care has been subject of numerous reports. These reports propose to increase task delegation as well as to introduce a free market system into dental care. These interventions should lead to a higher quality of care offered at a lower price. However, dental care lacks transparency in quality. The quality of dental care is not transparent enough and the information patients need in order to make an informed choice, the so-called choice information, is lacking as well. As a result of this, the dental care sector has proposed a number of initiatives, for example by introducing the Quality Register Dentists (KRT), the Guarantee Fund Dental Care and the Quality Register Dental Hygienists (KRM). Moreover, quality indicators were developed in cooperation with the Dutch Federation of Patients and Consumer Organizations.

The right to choice information is not explicitly taken care of in the current legislation. The government is planning on introducing a new law, namely the Patient's Rights Act. This law consists of five different legal rights. One of these rights is the right to choice information. This means that health care providers are required to present choice information to patients. This information should be reliable and comparable. In anticipation of new legislation, the Dutch government has introduced a program called Visible Care. The main goal of this program is to support health care in making delivered care more transparent, so that patients are able to make an informed choice. The choice information for patients relates to the out-comes of care, patient evaluations and organizational aspects. The program also focuses on dental care. The outcomes of health care mostly relate to medical technical aspects, such as indicators, guidelines and protocols. The patient evaluations can relate to both medical and non-medical aspects. The organizational aspects only relate to non-medical aspects: infrastructure (*accessibility and availability*), staff (*specializations in a practice*), information (*information about the range of treatments and services, types of information*), finances (*cost specification, guarantee*) and quality & safety (*working according to guidelines, testing quality in practice*). This information is also called window-information.



Due to the introduction of a free market system in dental care (1 January 2012) the implementation of the program Visible Care for dental care is rapidly taking place, because this free market system has to meet a number of specific demands. One of these demands is that window-information about dental care, along with price rates of different treatments and meaningful quality indicators, becomes accessible. Moreover, patient experiences with delivered care should be measured by general dental practitioners (GDPs).

In order to contribute to the development of choice information for patients of dental care, this study has primarily focused on the following questions:

- *Which organizational aspects are considered most important by patients when assessing a general dental practice, and which patients' characteristics influence their views?*
- *Which views do patients and GDPs have with respect to the organizational aspects of a general dental practice?*
- *Can GDPs adequately estimate the views of patients with respect to organizational aspects of a general dental practice?*
- *How do dental students rate the importance with respect to various organizational aspects of dental practices compared to dental patients and GDPs, and what prescriptions do dental students propose? In doing so, do students resemble patients or GDPs?*

## **METHOD**

Three questionnaires were developed for this study: one for patients, one for GDPs and one for students. The questionnaire for patients was developed first. On the basis of a literature study, a list with 169 aspects that relate to organizational aspects of a dental practice was developed. This list was assessed on overlap and usability. This resulted in a list of 61 organizational aspects that can be used to assess a dental practice. This list was adapted to a concept questionnaire. In the second phase, three focus group meetings were organized in cooperation with a patient organization: two with patients and one with GDPs. In these meetings, the questionnaire was assessed on feasibility, relevance and practicability which resulted in a list of 41 aspects. The questionnaire was then tested among patients in a dental practice and in the last phase the list was assessed and commented on by experts in the field of dental care and social sciences.

The questionnaire was distributed among 100 dental practices in the Netherlands. All the practices that took part in this study have handed out questionnaires to 50 patients in the same period (2009). All patients received a reminder in two weeks, requesting them to fill out the questionnaire and to return it if they had not done so already.

The GDPs of 100 participating dental practices were asked to complete the questionnaire for dentists. In addition, this questionnaire was distributed among a representative sample of 400 GDPs in the Netherlands. All respondents were asked to standardize all aspects and to prioritize them as well. These results provided an answer to the first two research questions.

The questionnaire for patients was adapted for the third research question, namely the question about whether or not dentists could properly assess the standardization of patients. The 22 organizational aspects that were rated as most important by patients when assessing a dental practice formed the starting point of this study. In order to be able to answer this question, another representative sample of 400 GDPs was compiled.

For the last research question, the questionnaire for dentists was changed into a questionnaire for dental students in order to measure the prioritization and standardization of a dental practice. All first year and last year students of the dental faculty in Nijmegen and Groningen were approached for this part of the study.

## RESULTS

The response rate of patients in the first study was 63% and that of GDPs was 61%. Compared to national data of dental patients, women were slightly overrepresented among the respondents (59%); this also holds true for the respondents in the age category 40-64. The compilation of responding GDPs did not significantly differ in age and gender from the dental population in the Netherlands. The response rate in the study about dental students was 90%.

### ***Which organizational aspects are considered most important by patients when assessing a general dental practice, and which patients' characteristics influence their views?***

Patients and dentists prioritize the same organizational aspects in the top 3 when assessing a dental practice: *'accessibility by phone'*, *'(refresher) training'* and *'Dutch-speaking dentist'*. Aspects that were mentioned as important by at least 50% of the patients are *'waiting times in practice'*, *'information about services'* and *'how soon can a patient be treated'*. Aspects that relate to infrastructure are more important to patients than other aspects. The patient characteristics of age and education significantly influence four out of six aspects. As it turns out, older patients find accessibility by phone more important than younger patients. Women find (refresher) training for dentists more often important than men and the higher the education, the more important patients find (refresher) training. High educated respondents also find accessibility by phone less important than lower educated respondents. Older patients find information about treatments more important than younger patients.

***Which views do patients and GDPs have on the organizational aspects of a general dental practice?***

In standardizing organizational aspects of a dental practice, it appears that patients and dentists significantly differ on 12 out of 17 aspects (*17 aspects were mentioned by patients as one of the ten most important aspects when assessing a dental practice*). For the aspects '*Dutch-speaking dentist*', '*information about treatments on the internet*', '*guarantee on restoration*', '*information on the bill*' and '*reminder periodic dental examination*', no significant differences were found in the prescripts. For 11 out of 17 aspects, patients and dentists chose the same answer categories most often. For the question 'Within how many minutes do you think patients would like the telephone to be answered?' the answer category '*between 15 and 30 seconds*' was chosen most often by the respondent groups and for the question 'How often should a dental practice perform quality assessment?' the answer category '*At least once every two years*' was chosen most often. Another striking finding was that patients have answered realistically. For example, patients do not expect to be able to receive treatment for a broken tooth immediately, but they do expect to receive their treatment the same day. GDPs are stricter about aspects that indirectly influence medical practice, for example how soon a patient can be treated; they want to perform treatment sooner in case of medical urgencies than patients. Finally, it is striking to find that GDPs are not enthusiastic of business hours during the evening or during the weekend, while a little less than half of the patients find that dental practices should also be opened during the evening and during the weekend.

***Can GDPs adequately estimate the views of patients with respect to organizational aspects of a general dental practice?***

In the study about the estimation of the views of patients by GDPs, it appears that patient and GDPs have for 18 out of 22 aspects different prescripts and that GDPs are not able to estimate the views of patients very well. For 4 out of 22 aspects the patients and GDPs provided the same standardization and for these aspects GDPs properly estimated the views of patients: '*Dutch-speaking GDP*', '*guarantee*', '*treatment by the same dental care provider*' and '*reminder periodic dental examination*'. For two aspects ('*quality assessment*' and '*accessibility for disabled people*') patients and GDPs gave the same standardization but did GDPs underestimate the wishes of patients. For the most aspects the standardization differed between patients and dentists and did GDPs under- or overestimate the views of patients.

***How do dental students rate the importance of various organizational aspects of dental practices compared to dental patients and GDPs, and what prescripts do dental students propose? In doing so, do students resemble patients or GDPs?***

As appeared in the study into the prioritization of organizational aspects to assess a dental practice by dental students, there are no significant differences between both

the prioritization and the prescripts of first-year and final-year student groups of respondents. These two respondent groups have been combined.

The three respondent groups (*students, patients and GDPs*) mentioned the same aspects in the top 3 of most important aspects. These did differ in ranking: *'(refresher) training'*, *'accessibility by phone'* and *'Dutch-speaking GDPs'*.

Students and GDPs provided the same prescripts for the aspects *'accessibility by phone'*, *'continuing education'*, *'Dutch-speaking GDP'*, *'working according to the professional standard'*, *'working according to guidelines and protocols'* and *'waiting times in the practice'*. Students and patients provided the same prescripts for the aspects *'Dutch-speaking GDP'* and *'waiting times in the practice'*. It appears that dental students think more like GDPs than like patients in their assessment of organizational aspects of a dental practice.

## **IMPLEMENTATION**

The results of the studies as described in this thesis have formed the basis of a quality section, composed by health insurance company CZ. Moreover, the results have formed the basis of composing window-information about dental care within the program Visible Care. This window-information was compiled by Radboud University Nijmegen Medical Centre in cooperation with the Consumers Union. The research into general dental practices was expanded to meet the wishes of patients of orthodontists, dental hygienists and dental prostheticists.

## **CONCLUSIONS AND RECOMMENDATIONS**

On the basis of the results of these studies as described here, the following conclusions can be drawn and the following recommendations can be made:

- *Patients find aspects relating to infrastructure important when assessing the organizational aspects of a dental practice, while GDPs find aspects that relate to medical technical issues important. Older patients find accessibility by telephone and information about treatments more important than younger patients. Higher educated patients find (refresher) training more important than lower educated patients, while higher educated patients find accessibility by telephone less important. GDPs are recommended to pay attention to infrastructure in the organization of their dental practice. Moreover, GDPs can adapt the organization of their practice to the views of specific patients or target groups such as older patients or higher educated patients. This study provides insight into these wishes.*

- *The prescripts of organizational aspects of a dental practice by dentists and patients respectively significantly differs for most of the aspects. Both groups did mention the same answer categories the most. However, they were asked about their wishes in the most ideal situation, not about the practice the patient is currently registered at or the practice the dentist is currently working at. Therefore, research into the organizational aspects of a daily dental practice is recommended and these results should be compared with the results of this study, for example by means of patient experiences. This can provide insight into any shortcomings and, if necessary, dentists can adapt the organization of their practice. Moreover, policy makers and researches can use the results of this study for the development and implementation of patient experience surveys and guidelines. These results can also form the basis for the development of window-information for patients.*
- *From the research into the prescripts and prioritization of organizational aspects of a dental practice by patients and the assessment of these prescripts and prioritization by dentists, the conclusion can be drawn that GDPs do not estimate the prescripts of most aspects by patients very well. Therefore, it should be recommended that GDPs become more aware of the wishes of their patients. For example, GDPs could place a suggestion box in their waiting room. In this way, patients can express their wishes and opinions. GDPs can use this input to adapt the organization of their practice to the wishes of patients and in this way, they can improve the information for patients.*
- *The conclusion can be drawn that there are no differences between first-year and final-year dental students with regard to both the prioritization as well as the standardization of organizational aspects of a dental practice. No significant differences were found with regard to prioritization in the comparison between the prioritization by dental students and that of patients and GDPs. The prescripts do, however, differ: with regard to this, dental students resemble GDPs more than they resemble patients. Given the fact that there are no differences between first-year and final-year students, it should be recommended to let patient perspective play a more significant role from the first year of a dental education program onwards. This may lead to more 'future' GDPs that offer patient-central care, which in turn may possibly lead to (even) more satisfied patients.*

# Chapter 8

## SAMENVATTING





# 8

## SAMENVATTING

### ACHTERGROND

In Nederland is de gezondheidszorg en daarmee ook de mondzorg de laatste decennia aan vele veranderingen onderhevig. Hieraan ligt een aantal maatschappelijke en juridische ontwikkelingen ten grondslag. Een eerste ontwikkeling in de jaren negentig van de vorige eeuw was dat de positie van de patiënt in de gezondheidszorg steeds sterker werd verankerd in wet- en regelgeving. Deze wetten hebben, direct en indirect, enerzijds als doel de kwaliteit van zorg te verbeteren en anderzijds om de patiënt meer centraal te stellen. Daarnaast is de organisatie van de tandheelkunde onderwerp geweest van tal van rapporten. Daarin wordt naast een uitbreiding van taakdelegatie ook voorgesteld om marktwerking in de mondzorg te introduceren. Deze ingrepen moeten leiden tot kwalitatief betere zorg tegen een lagere prijs. Het ontbreekt echter aan transparantie van kwaliteit in de mondzorg. De kwaliteit is weinig inzichtelijk en ook informatie waarop een patiënt zijn keuze voor een mondzorgverlener kan baseren, de zogenaamde keuze-informatie, ontbreekt. Daarop heeft het veld verschillende initiatieven genomen door bijvoorbeeld het Kwaliteitsregister Tandartsen (KRT), het Garantiefonds Mondzorg en het Kwaliteitsregister Mondhygiënisten (KRM) te introduceren. Ook zijn, in samenwerking met de Nederlandse Patiënten Consumenten Federatie (NPCF), kwaliteitsindicatoren ontwikkeld.

In de huidige wetgeving is het recht op keuze-informatie nog niet expliciet geregeld. De overheid is voornemens om een nieuwe wet te introduceren: de Wet Cliëntenrechten Zorg. De wet bestaat uit vijf basisrechten. Een van deze rechten is het recht op keuze-informatie. Dit recht houdt in dat zorgverleners verplicht worden om keuze-informatie aan te bieden aan patiënten. Deze informatie moet betrouwbaar en vergelijkbaar zijn. Vooruitlopend op nieuwe wetgeving, heeft de Nederlandse overheid het programma Zichtbare Zorg in het leven geroepen met als doel de gezondheidszorg te ondersteunen bij het transparanter maken van de geleverde zorg zodat patiënten beter een keuze kunnen maken. De keuze-informatie voor patiënten heeft betrekking op de uitkomsten van zorg, patiëntevaluaties en organisatorische aspecten. Het programma richt zich ook op de mondzorg.

De uitkomsten van zorg hebben voornamelijk betrekking op medisch technische aspecten, zoals indicatoren, richtlijnen en protocollen. De patiëntevaluaties kunnen betrekking hebben op zowel medische als niet-medische aspecten. De organisatorische aspecten hebben alleen betrekking op niet-medische aspecten: infrastructuur (*bereikbaarheid en*



*beschikbaarheid), personeel (specialisaties in de praktijk), informatie (informatie over aanbod van behandelingen of diensten, typen van informatievoorziening), financiën (kostenspecificaties, garantie) en kwaliteit & veiligheid (werken volgens richtlijnen, toetsen van kwaliteit in de praktijk). Deze informatie wordt ook wel etalage-informatie genoemd.*

Door de introductie van marktwerking in de mondzorg (1 januari 2012) is de implementatie van het Zichtbare Zorg programma voor de mondzorg in een stroomversnelling gekomen aangezien aan de marktwerking specifieke eisen zijn gesteld. Eén van de eisen is dat etalage-informatie over de mondzorg, samen met de tarieven van behandelingen en betekenisvolle kwaliteitsindicatoren, beschikbaar komen. Daarnaast moeten ook patiëntervaringen over de geleverde zorg gemeten worden door de mondzorgverleners.

Om een bijdrage te leveren aan de ontwikkeling van de keuze-informatie voor patiënten in de mondzorg, richtte het onderzoek zich primair op de volgende vragen:

- *Welke organisatorische aspecten vinden patiënten en tandartsen belangrijk bij het beoordelen van een tandartspraktijk?*
- *Welke normering geven patiënten en tandartsen aan deze aspecten?*
- *Hoe schatten tandartsen de normering van organisatorische aspecten door patiënten in en verschilt hun eigen normering daarvan?*
- *Welke organisatorische aspecten van de tandartspraktijk vinden eerstejaars en laatstejaars studenten van de opleiding tandheelkunde belangrijk bij het beoordelen van een tandartspraktijk?*

## **METHODE**

Voor het onderzoek zijn drie vragenlijsten ontwikkeld: voor patiënten, tandartsen en studenten. Als eerste werd de vragenlijst voor patiënten ontwikkeld. Aan de hand van literatuuronderzoek werd een lijst samengesteld met 169 aspecten die betrekking hebben op organisatorische aspecten van de tandartspraktijk. Deze lijst werd beoordeeld op overlap en bruikbaarheid. Dit resulteerde in een lijst van 61 organisatorische aspecten om een tandartspraktijk te beoordelen. Deze lijst is bewerkt tot een concept vragenlijst. In een tweede fase zijn, in samenwerking met een patiëntenorganisatie, drie focusgroep bijeenkomsten georganiseerd: twee met patiënten en één met tandartsen. Tijdens deze bijeenkomsten is de conceptvragenlijst beoordeeld op haalbaarheid, relevantie en uitvoerbaarheid, resulterend in een lijst met 41 aspecten. Vervolgens is de vragenlijst onder patiënten getest in een tandartspraktijk en in een laatste fase is de lijst beoordeeld en becommentarieerd door experts op het gebied van de tandheelkunde en sociale wetenschappen.

De vragenlijst voor patiënten is uitgezet bij 100 tandartspraktijken verdeeld over Nederland. Alle deelnemende praktijken hebben in dezelfde periode (2009) de vragenlijst aan 50 patiënten uitgedeeld. Na twee weken hebben alle patiënten een herinneringsbrief gekregen met het verzoek de vragenlijst in te vullen en te retourneren indien zij dit nog niet gedaan hadden.

Daarnaast is aan de tandartsen van de 100 deelnemende praktijken gevraagd de vragenlijst voor tandartsen in te vullen. Ook is de tandartsenenquête uitgezet onder een representatieve steekproef van 400 tandartsen in Nederland.

Alle respondenten is gevraagd om alle aspecten te normeren en daarna te prioriteren. Hiermee kon een antwoord gegeven worden op de eerste twee onderzoeksvragen.

Voor de derde onderzoeksvraag, of tandartsen de normering van patiënten konden inschatten, is de vragenlijst voor patiënten aangepast. De 22 aspecten die door patiënten zijn aangemerkt als meest belangrijk bij de beoordeling van tandartspraktijken, vormden het uitgangspunt in dit onderzoek. Voor de beantwoording van deze onderzoeksvraag is opnieuw een representatieve steekproef van 400 tandartsen samengesteld.

Voor de laatste onderzoeksvraag is de vragenlijst voor tandartsen bewerkt tot een vragenlijst voor de studenten tandheelkunde om de prioritering en normering bij de beoordeling van tandartspraktijken te meten. Alle eerstejaars en laatstejaars studenten van de faculteiten tandheelkunde in Nijmegen en Groningen zijn voor dit deel van studie benaderd.

## **RESULTATEN**

De respons in het eerste onderzoek lag voor de patiënten op 63% en op 61% voor de tandartsen. Vergeleken met landelijke gegevens over tandartsbezoekers, waren onder de respondenten vrouwen enigszins oververtegenwoordigd (59%); dat gold ook voor respondenten in de leeftijdsgroep 40-64 jaar.

De samenstelling van de responderende tandartsen verschilde qua leeftijd en geslacht niet significant met de tandartspopulatie in Nederland.

De respons bij het onderzoek onder studenten tandheelkunde bedroeg 90%.

***Welke organisatorische aspecten vinden patiënten en tandartsen belangrijk bij het beoordelen van een tandartspraktijk?***

Patiënten en tandartsen prioriteren dezelfde organisatorische aspecten in de top 3 om een tandartspraktijk te beoordelen: telefonische bereikbaarheid, bij- en nascholing en Nederlandssprekende tandarts. Aspecten die door minimaal 50% van de patiënten zijn genoemd als belangrijk zijn 'wachttijden in de praktijk', 'informatie over diensten' en 'snelheid van het terecht kunnen voor afspraken'. Aspecten die betrekking hebben op de infrastructuur (*bereikbaarheid, maken van afspraken, wachttijden*) zijn meer belangrijk voor patiënten dan andere aspecten. De patiëntkarakteristieken leeftijd en opleiding hebben significante invloed op vier van de zes aspecten. Zo blijken bijvoorbeeld oudere patiënten telefonische bereikbaarheid van de tandartspraktijk belangrijker te vinden dan jongere patiënten. Vrouwen vinden bij- en nascholing voor tandartsen vaker belangrijk dan mannen en hoe hoger men is opgeleid, des te belangrijker vindt men bij- en nascholing. Hoger opgeleide respondenten vinden ook telefonische bereikbaarheid van de praktijk minder vaak belangrijk dan lager opgeleiden. Informatie over de behandelingen wordt door ouderen vaker belangrijk gevonden dan door jongeren.

***Welke normering geven patiënten en tandartsen aan de organisatorische aspecten?***

Bij de normering van de organisatorische aspecten van de tandartspraktijk blijkt dat patiënten en tandartsen significant verschillen op 12 van de 17 aspecten (*17 aspecten worden door 25% van de patiënten genoemd als één van de tien belangrijkste aspecten bij de beoordeling van de tandartspraktijk*). Voor de aspecten 'Nederlandssprekende tandarts', 'informatie over de behandelingen via internet', 'garantie op een restauratie', 'informatie op de rekening' en 'herinnering periodiek mondonderzoek' zijn geen significante verschillen in de normering gevonden. Bij 11 van de 17 aspecten noemen patiënten en tandartsen dezelfde antwoordcategorie het meest. Bij de vraag "hoe lang mag het duren voordat de telefoon wordt beantwoord?" wordt de antwoordcategorie 'tussen 15-30 seconden' het meest genoemd door de respondentgroepen en wordt bij de vraag "hoe vaak zou de praktijk aan kwaliteitstoetsing moeten doen?" de antwoord-categorie 'minimaal één keer in de twee jaar' het meest genoemd. Verder viel op dat patiënten realistisch geantwoord hebben. Zo verwachten patiënten niet dat zij wanneer een stuk van een tand is afgebroken direct terecht kunnen, maar verwachten zij wel dat dit dezelfde dag kan. Tandartsen zijn strikter met aspecten die indirect van invloed kunnen zijn op het medisch handelen, zoals het terecht kunnen voor een afspraak; zij willen dit sneller bij medisch meer urgente gevallen dan patiënten. Tot slot is het opmerkelijk dat tandartsen niet positief staan tegenover openingstijden in de avond of het weekend, terwijl iets minder dan de helft van de patiënten aangeeft dat de praktijk ook 's avonds en/of in het weekend open zou moeten zijn voor reguliere zorg.

***Hoe schatten tandartsen de normering van organisatorische aspecten door patiënten in en in hoeverre verschilt deze met hun eigen normering?***

In het onderzoek naar de inschatting van de wensen van patiënten door tandartsen van de 22 belangrijkste aspecten komt naar voren dat patiënten en tandartsen voor 18 van de 22 aspecten deze anders normeren en dat tandartsen de wensen van de patiënten niet goed inschatten.

Voor 4 van de 22 aspecten hebben patiënten en tandartsen dezelfde normering en schatten tandartsen de wensen van patiënten goed in: *‘Nederlandssprekende tandarts’*, *‘garantie’*, *‘behandeling door dezelfde zorgverlener’* en *‘herinnering periodiek mondonderzoek’*. Voor twee aspecten (*‘kwaliteitstoetsing’* en *‘toegankelijkheid voor minder validen’*) hebben patiënten en tandartsen dezelfde normering maar onderschatten tandartsen de wensen van patiënten. Bij de meeste aspecten verschilt de normering tussen patiënten en tandartsen en over- of onderschatten de tandartsen de wensen van patiënten.

***Welke organisatorische aspecten vinden eerstejaars en laatstejaars studenten van de opleiding tandheelkunde belangrijk bij het beoordelen van een tandartspraktijk en welke normering geven zij hieraan? Lijken zij hierbij meer op tandartsen of meer op patiënten?***

In het onderzoek naar de prioritering van de studenten tandheelkunde van de organisatorische aspecten om een tandartspraktijk te beoordelen blijken er in zowel de prioritering als de normering van de eerstejaars en laatstejaars studenten geen significante verschillen te zijn tussen de respondentgroepen. Deze twee respondent-groepen zijn samengevoegd.

De drie respondentgroepen (*studenten, patiënten en tandartsen*) noemen dezelfde aspecten in de top drie meest belangrijke aspecten. Deze verschillen wel in rangorde: *‘bij- en nascholing’*, *‘telefonische bereikbaarheid’* en *‘Nederlandssprekende tandarts’*.

Studenten en tandartsen hebben dezelfde normering voor de aspecten *‘telefonische bereikbaarheid’*, *‘bij- en nascholing’*, *‘Nederlandssprekende tandarts’*, *‘werken volgens de professionele standaard’*, *‘werken volgens richtlijnen en protocollen’* en *‘wachttijden in de praktijk’*. Studenten en patiënten hebben dezelfde normering bij de aspecten *‘Nederlands-sprekende tandarts’*, *‘wachttijden in de praktijk’*.

Het lijkt erop dat studenten tandheelkunde bij de beoordeling van organisatorische aspecten van een tandartspraktijk meer op tandartsen lijken dan op patiënten.

## IMPLEMENTATIE

De uitkomsten van de onderzoeken beschreven in dit proefschrift hebben als basis gediend voor het opstellen van een kwaliteitsparagraaf van zorgverzekeraar CZ. Daarnaast hebben de onderzoeken als basis gediend bij het opstellen van etalage-informatie over mondzorg binnen het programma Zichtbare Zorg. Deze etalage-informatie is opgesteld door het UMC St Radboud in samenwerking met de Consumentenbond. Hierbij is het onderzoek voor de tandartspraktijk uitgebreid naar de wensen van patiënten van orthodontisten, van mondhygiënist en van tandprothetic.

## CONCLUSIES EN AANBEVELINGEN

Op basis van de resultaten van de onderzoeken die beschreven zijn kunnen de volgende conclusies en aanbevelingen gedaan worden:

- *Patiënten vinden aspecten op het gebied van infrastructuur belangrijk bij de beoordeling van organisatorische aspecten van de tandartspraktijk terwijl tandartsen aspecten die meer in de lijn van het medisch inhoudelijk handelen liggen belangrijk vinden. Telefonische bereikbaarheid en informatie over behandelingen vinden ouderen belangrijker dan jongeren. Hoger opgeleiden vinden bij- en nascholing belangrijker dan lager opgeleiden, terwijl telefonische bereikbaarheid door hoger opgeleiden minder belangrijk wordt gevonden. Het is aan te bevelen dat tandartsen bij de organisatie van de praktijk aandacht schenken aan de infrastructuur. Ook kunnen tandartsen hun praktijkorganisatie aanpassen aan de wensen van specifieke patiënten of doelgroepen zoals ouderen of hoger opgeleiden. Dit onderzoek geeft inzicht in deze wensen.*
- *De normering van organisatorische aspecten van de tandartspraktijk door tandartsen en patiënten verschilt significant voor de meeste aspecten. Wel noemden de beide groepen dezelfde antwoordcategorieën het meest. Echter, in de onderzoeken is gevraagd naar de wensen in de ideale situatie en niet naar de situatie in de praktijk waar de patiënt staat ingeschreven of de tandarts werkzaam is. Daarom is onderzoek aanbevolen naar de organisatorische aspecten in de dagelijkse praktijk en deze te vergelijken met de uitkomsten van dit onderzoek, bijvoorbeeld door middel van patiëntervaringen. Dit kan inzicht geven in eventuele tekortkomingen. Hierop kan een tandarts de organisatie van de zorgverlening daar waar nodig aanpassen. Daarnaast kunnen de uitkomsten van het onderzoek door beleidsmakers en onderzoekers gebruikt worden bij de ontwikkeling en implementatie van patiëntervaringsonderzoeken en richtlijnen. Ook bij de ontwikkeling van keuze-informatie voor patiënten kunnen deze uitkomsten als basis dienen.*

- *Uit het onderzoek naar de normering en prioritering van organisatorische aspecten van de tandartspraktijk door patiënten en de inschatting van deze normering en prioritering van patiënten door tandartsen kan de conclusie getrokken worden dat tandartsen de normering van de meeste aspecten van patiënten niet goed inschatten. Het is daarom aan te bevelen dat tandartsen beter zicht hebben op de wensen van hun patiënten. Zo kunnen tandartsen bijvoorbeeld in de wachtkamer een ideeënbus plaatsen. Patiënten kunnen zo hun wensen en meningen uiten. Deze input kunnen tandartsen gebruiken om de praktijkorganisatie nog meer op de wensen van de patiënten af te stemmen en kunnen zij de informatievoorziening naar de patiënten toe verbeteren.*
- *De conclusie kan getrokken worden dat er geen verschil is tussen de eerstejaars en laatstejaars studenten tandheelkunde bij zowel de prioritering als de normering van de organisatorische aspecten van de tandartspraktijk. In de vergelijking van de prioritering door studenten tandheelkunde met patiënten en tandartsen zijn er geen grote verschillen. Wel verschilt de normering; hierin lijken studenten tandheelkunde meer op tandartsen dan op patiënten. Gezien het feit dat er geen verschillen zijn tussen eerstejaars en laatstejaars studenten is het dan ook aan te bevelen dat het patiënten-perspectief vanaf het begin van de opleiding een stevigere basis in het tandheelkunde curriculum krijgt. Dit kan leiden tot meer 'toekomstige' tandartsen die zorg bieden waarbij de patiënt centraal staat met als mogelijk resultaat (nog) meer tevreden patiënten.*





## DANKWOORD

*Na enkele jaren Tandheelkunde gestudeerd te hebben, ben ik in 2001 begonnen met de studie Gezondheidswetenschappen. Desondanks bleef, voor mij, het vakgebied van de tandarts interessant, in het bijzonder de sociale en organisatorische kant. Het was dan ook voor mij een logische stap in mijn carrière om te beginnen met mijn promotie-onderzoek bij de afdeling Preventieve en Curatieve Tandheelkunde in Nijmegen.*

*Maar, zoals iedereen weet, is het niet alleen de promovendus die een proefschrift maakt. Ik wil dan ook mijn dank uitspreken aan iedereen die geholpen heeft, actief of passief, bij het realiseren van dit proefschrift.*

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*Mr. dr. W.G. Brands, beste Wolter, ontzettend bedankt voor jouw inzet. Jij hebt heldere visie op de sociale tandheelkunde in het algemeen en mijn proefschrift in het bijzonder. Ik ben jou zeer erkentelijk voor jouw bijdragen aan mijn proefschrift. Als ik een artikel in concept naar jou opstuurde, kreeg ik altijd zeer snel een reactie. Jij bracht mij structuur in het schrijven bij waardoor ik bijna niets meer ongestructureerd kan schrijven! Onze discussies kon ik erg waarderen. Ik hoop in de toekomst nog veel met jou te kunnen samenwerken.*

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*Speciale dank gaat uit naar tandartspraktijk Mondzorg024 (voorheen Tandheelkundig Centrum Tolhuis). Fons, Frans en Rogier, bedankt voor het meewerken aan de pilot!*

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*Ook alle patiënten die de moeite hebben genomen om mijn vragenlijst in te vullen, heel erg bedankt. Het was een mooie respons.*

*Daarnaast wil ik ook alle tandartsen en studenten Tandheelkunde uit Groningen en Nijmegen bedanken voor hun medewerking.*

*Leden van de Stuurgroep Zichtbare Zorg, bedankt dat ik, samen met De Consumentenbond, de kans kreeg voor het ontwikkelen van de etalage-informatie op basis van mijn onderzoeksresultaten. De keuze-informatie voor patiënten is mede hierdoor toegenomen.*

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*Last but definitely not least: Rogier.*

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## CURRICULUM VITAE

Rutger Sonneveld werd op 19 april 1979 geboren in Apeldoorn. In 1997 behaalde Rutger zijn Atheneum diploma aan het Veluws College te Apeldoorn. Daarna is hij een jaar gaan *'backpacken'* in Australië en Nieuw-Zeeland. In 1998 is Rutger begonnen met de studie Tandheelkunde in Amsterdam en in 2001 heeft hij de overstap gemaakt naar de studie Gezondheidswetenschappen aan de Universiteit Maastricht met als afstudeerrichting Beleid en Beheer van de gezondheidszorg.

In 2005 is Rutger begonnen bij onderzoeks- en adviesbureau Prismant waar hij zich voornamelijk bezig hield met kwaliteit van zorg en patiënt-tevredenheid- en patiëntervaringsonderzoeken.

De ervaringen vanaf de middelbare school kon Rutger combineren in zijn promotieonderzoek bij de afdeling Preventieve en Curatieve Tandheelkunde van het UMC St Radboud: welke informatiebehoefte hebben patiënten, tandartsen en studenten bij de beoordeling van een tandartspraktijk?

Sinds september 2011 werkt Rutger bij de Nederlandse Maatschappij tot bevordering der Tandheelkunde als beleidsadviseur kwaliteit. Hier houdt Rutger zich bezig met diverse beleidsvraagstukken op het gebied van het verbeteren en inzichtelijk maken van de kwaliteit van de mondzorg in Nederland.



## Bijlage 1 Vragenlijst voor patiënten



### Uw wensen over de tandartspraktijk

Graag willen wij u verzoeken om onderstaande vragenlijst in te vullen. De vragen gaan over organisatorische aspecten in de tandartspraktijk. Wij vragen u niet naar uw mening over uw eigen tandarts, maar naar uw ideale tandartspraktijk.

Wij verzoeken u alle vragen in te vullen; er zijn geen goede of foute antwoorden. Het gaat om uw mening. De vragenlijst is volledig anoniem.

De vragenlijst kunt u invullen met een zwarte of blauwe pen. Wanneer u uw keuze wilt wijzigen, kunt u het foutieve vakje helemaal blauw of zwart maken en vervolgens een ander vakje aankruisen. De vragenlijst kunt u in bijgevoegde portovrije enveloppe terugsturen. Een postzegel is niet nodig. Wij verzoeken u de vragenlijst voor **binnen twee weken** terug te sturen.

Mocht u nog vragen hebben dan kunt u contact opnemen met Rutger Sonneveld:  
[r.sonneveld@dent.umcn.nl](mailto:r.sonneveld@dent.umcn.nl) of 024-3619460.

Algemene kenmerken		
<b>A</b> Wat is uw <i>geslacht</i> ?		
<input type="checkbox"/> man	<input type="checkbox"/> vrouw	
<b>B</b> Wat is uw <i>leeftijd</i> ?		
<input type="checkbox"/> jonger dan 20	<input type="checkbox"/> 20-39 jaar	<input type="checkbox"/> 40-54 jaar
<input type="checkbox"/> 55-64 jaar	<input type="checkbox"/> 65 jaar of ouder	
<b>C</b> Wat zijn de eerste vier cijfers van uw <i>postcode</i> ?		
<b>D</b> Wat is uw hoogst afgeronde <i>opleiding</i> ?		
<input type="checkbox"/> Lager (beroeps)onderwijs	<input type="checkbox"/> MULO/MAVO/MBO/VMBO	<input type="checkbox"/> HAVO/MMS/Gymnasium/VWO
<input type="checkbox"/> HBO	<input type="checkbox"/> Universiteit	<input type="checkbox"/> geen opleiding
<b>E</b> Bij welke <i>zorgverzekeraar</i> bent u verzekerd?		
<input type="checkbox"/> Achmea	<input type="checkbox"/> AGIS	<input type="checkbox"/> Fortis
<input type="checkbox"/> UVIT (Univé, VGZ, IZA, Trias)	<input type="checkbox"/> ONVZ	<input type="checkbox"/> Delta Lloyd/Ohra
<input type="checkbox"/> CZ	<input type="checkbox"/> Menzis	<input type="checkbox"/> andere zorgverzekeraar
<input type="checkbox"/> via een tussenpersoon	<input type="checkbox"/> ik weet niet waar ik verzekerd ben	
<b>F</b> Bent u voor de tandzorg <i>aanvullend verzekerd</i> ?		
<input type="checkbox"/> ja	<input type="checkbox"/> nee	
<b>G</b> Wat is uw <i>woonsituatie</i> ?		
<input type="checkbox"/> ik woon alleen	<input type="checkbox"/> ik woon samen met één of meer personen	

## Infrastructuur

**1** Als u een tandartspraktijk **belt**, hoe lang zou het mogen duren voordat de telefoon wordt beantwoord?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> direct         | <input type="checkbox"/> binnen 15 seconden   | <input type="checkbox"/> 15-30 seconden |
| <input type="checkbox"/> 30-60 seconden | <input type="checkbox"/> meer dan 60 seconden | <input type="checkbox"/> maakt niet uit |

**2** Vindt u het wenselijk dat u een tandarts te **spreeken** krijgt wanneer u **belt** met een medisch inhoudelijke vraag?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> ja, altijd                                  | <input type="checkbox"/> ja, alleen bij spoed                  | <input type="checkbox"/> ja, als de tandarts indien gewenst terugbelt |
| <input type="checkbox"/> ja, als de patiënt indien gewenst terugbelt | <input type="checkbox"/> ja, tijdens een telefonisch spreekuur | <input type="checkbox"/> maakt niet uit                               |
| <input type="checkbox"/> nee   |  |   |

**3** Binnen hoeveel kilometer vindt u het wenselijk dat een tandartspraktijk **fysiek** bereikbaar is (ongeacht het type vervoer)?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> minder dan 2 kilometer | <input type="checkbox"/> 2-5 kilometer  | <input type="checkbox"/> 5-10 kilometer |
| <input type="checkbox"/> meer dan 10 kilometer  | <input type="checkbox"/> maakt niet uit |   |

**4** Vindt u het wenselijk dat een tandartspraktijk voor normale tandheelkundige hulp ook 's avonds en/of in het weekend open is?

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> ja, alleen 's avonds | <input type="checkbox"/> ja, alleen in het weekend | <input type="checkbox"/> ja, 's avonds en in het weekend |
| <input type="checkbox"/> maakt niet uit       | <input type="checkbox"/> nee                       |  |

**5** Wanneer u een afspraak heeft, welke **wachttijd** in de praktijk vindt u acceptabel als u in de wachtkamer zit?

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> geen wachttijd | <input type="checkbox"/> 1-5 minuten   | <input type="checkbox"/> 6-10 minuten        |
| <input type="checkbox"/> 11-15 minuten  | <input type="checkbox"/> 16-20 minuten | <input type="checkbox"/> meer dan 20 minuten |

**6** Binnen welk **tijdsbestek** vindt u het wenselijk dat u **terecht** kan bij een tandartspraktijk voor een:

• controle?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> direct                | <input type="checkbox"/> dezelfde dag            | <input type="checkbox"/> binnen twee dagen        |
| <input type="checkbox"/> binnen twee dagen     | <input type="checkbox"/> binnen één à twee weken | <input type="checkbox"/> binnen twee à vier weken |
| <input type="checkbox"/> langer dan vier weken |  |   |

• stukje van een kies af (geen pijn)?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> direct                | <input type="checkbox"/> dezelfde dag            | <input type="checkbox"/> binnen twee dagen        |
| <input type="checkbox"/> binnen twee dagen     | <input type="checkbox"/> binnen één à twee weken | <input type="checkbox"/> binnen twee à vier weken |
| <input type="checkbox"/> langer dan vier weken |  |   |

• pijnklachten?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> direct                | <input type="checkbox"/> dezelfde dag            | <input type="checkbox"/> binnen twee dagen        |
| <input type="checkbox"/> binnen twee dagen     | <input type="checkbox"/> binnen één à twee weken | <input type="checkbox"/> binnen twee à vier weken |
| <input type="checkbox"/> langer dan vier weken |  |   |

**7** Hoeveel **parkeerplaatsen** vindt u wenselijk dat er bij een praktijk per **mondzorgverlener** (tandarts/mondhygiënist) zijn?

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> maakt niet uit | <input type="checkbox"/> 1-2 parkeerplaatsen | <input type="checkbox"/> meer dan 3 parkeerplaatsen |
|---|--|---|

**8** Vindt u het bezwaarlijk dat de parkeerplaatsen **betaald parkeren** zijn bij de tandartspraktijk?

- |                             |   |                              |
|-----------------------------|---|------------------------------|
| <input type="checkbox"/> ja | <input type="checkbox"/> maakt niet uit | <input type="checkbox"/> nee |
|-----------------------------|---|------------------------------|

**9** Vindt u het bezwaarlijk dat een tandartspraktijk niet of nauwelijks toegankelijk is voor mensen in een **rolstoel**?

- |                             |   |                              |
|-----------------------------|---|------------------------------|
| <input type="checkbox"/> ja | <input type="checkbox"/> maakt niet uit | <input type="checkbox"/> nee |
|-----------------------------|---|------------------------------|

<b>10 Welke voorzieningen vindt u wenselijk in de wachtkamer?</b>		
• lectuur?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
• muziek?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
• televisie?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
• kindervoorzieningen (speelgoed, kinderboeken, speelhoek e.d.)?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee

<b>Personeel</b>		
<b>11 Vindt u het wenselijk dat er meerdere specialisaties aanwezig zijn in de praktijk, zoals een orthodontist of parodontoloog (one-stop-shopping)?</b>		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>12 Vindt u het wenselijk dat een tandartspraktijk een onderzoek naar patiënttevredenheid uitvoert?</b>		
<input type="checkbox"/> ja, minstens één keer per twee jaar	<input type="checkbox"/> ja, minstens één keer per vijf jaar	<input type="checkbox"/> maakt niet uit
<input type="checkbox"/> nee		
<b>13 Aan wie zou een tandartspraktijk de resultaten van een patiënttevredenheidsonderzoek bekend moeten maken?</b>		
<input type="checkbox"/> niemand	<input type="checkbox"/> patiënten	<input type="checkbox"/> zorgverzekeraars
<input type="checkbox"/> iedereen		
<b>14 Vindt u het wenselijk dat een tandartspraktijk een onderzoek naar de tevredenheid van het personeel uitvoert?</b>		
<input type="checkbox"/> ja, minstens één keer per twee jaar	<input type="checkbox"/> ja, minstens één keer per vijf jaar	<input type="checkbox"/> afhankelijk van het aantal medewerkers
<input type="checkbox"/> maakt niet uit		
<input type="checkbox"/> nee		
<b>15 Vindt u het wenselijk dat medewerkers van een groepspraktijk structureel en geagendeerd overleg voeren over patiënt-gerelateerde aspecten?</b>		
<input type="checkbox"/> ja, minstens één keer per week	<input type="checkbox"/> ja, minstens één keer per twee weken	<input type="checkbox"/> ja, minstens één keer per maand
<input type="checkbox"/> maakt niet uit		
<input type="checkbox"/> nee		
<b>16 Vindt u het wenselijk dat een tandarts structureel en geagendeerd overleg heeft met:</b>		
• <b>Tandartsen/zorgverleners</b> buiten de praktijk (met collega's, huisartsen, kaakchirurgen over bijvoorbeeld verwijzingen en medicatie)		
<input type="checkbox"/> ja, minstens één keer per maand	<input type="checkbox"/> ja, minstens één keer per kwartaal	<input type="checkbox"/> ja, minstens één keer per half jaar
<input type="checkbox"/> ja, minstens één keer per jaar	<input type="checkbox"/> ja, maar frequentie maakt niet uit	<input type="checkbox"/> nee
• <b>Technicus/lab</b> (over bijvoorbeeld geleverde diensten)		
<input type="checkbox"/> ja, minstens één keer per maand	<input type="checkbox"/> ja, minstens één keer per kwartaal	<input type="checkbox"/> ja, minstens één keer per half jaar
<input type="checkbox"/> ja, minstens één keer per jaar	<input type="checkbox"/> ja, maar frequentie maakt niet uit	<input type="checkbox"/> nee
• <b>Zorgverzekeraar</b>		
<input type="checkbox"/> ja, minstens één keer per maand	<input type="checkbox"/> ja, minstens één keer per kwartaal	<input type="checkbox"/> ja, minstens één keer per half jaar
<input type="checkbox"/> ja, minstens één keer per jaar	<input type="checkbox"/> ja, maar frequentie maakt niet uit	<input type="checkbox"/> nee
<b>17 Vindt u het wenselijk dat binnen de tandartspraktijk duidelijk is:</b>		
• wie welke <b>taken</b> uitvoert?		
<input type="checkbox"/> ja	<input type="checkbox"/> afhankelijk van de situatie	<input type="checkbox"/> nee
• wie (eind)verantwoordelijk is voor de taken?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee



<b>18</b> Vindt u het wenselijk dat de volgende zorgverlenende medewerkers van de tandartspraktijk deelnemen aan <b>bij- en nascholing</b> ?		
• Tandarts		
<input type="checkbox"/> ja, tussen de 0-8 uur per jaar	<input type="checkbox"/> ja, tussen de 8-24 uur per jaar	<input type="checkbox"/> ja, tussen de 24-40 uur per jaar
<input type="checkbox"/> ja, meer dan 40 uur per jaar	<input type="checkbox"/> ja, maar duur maakt niet uit	<input type="checkbox"/> nee
• Mondhygiënist		
<input type="checkbox"/> ja, tussen de 0-8 uur per jaar	<input type="checkbox"/> ja, tussen de 8-24 uur per jaar	<input type="checkbox"/> ja, tussen de 24-40 uur per jaar
<input type="checkbox"/> ja, meer dan 40 uur per jaar	<input type="checkbox"/> ja, maar duur maakt niet uit	<input type="checkbox"/> nee
• (preventie)assistent		
<input type="checkbox"/> ja, tussen de 0-8 uur per jaar	<input type="checkbox"/> ja, tussen de 8-24 uur per jaar	<input type="checkbox"/> ja, tussen de 24-40 uur per jaar
<input type="checkbox"/> ja, meer dan 40 uur per jaar	<input type="checkbox"/> ja, maar duur maakt niet uit	<input type="checkbox"/> nee
<b>19</b> Vindt u het wenselijk dat u door de jaren heen bij voorkeur door <b>dezelfde</b> zorgverlener <b>behandeld</b> wordt?		
<input type="checkbox"/> ja, door dezelfde persoon	<input type="checkbox"/> nee, maar wel door iemand met dezelfde opleiding	<input type="checkbox"/> nee, maar wel volgens hetzelfde behandelingsconcept
<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee	

<b>Informatie</b>		
<b>20</b> Op welke manier vindt u het wenselijk dat informatie over <b>aangeboden behandelingen</b> beschikbaar is binnen de praktijk (meer antwoorden mogelijk)?		
<input type="checkbox"/> schriftelijk	<input type="checkbox"/> via internet	<input type="checkbox"/> mondeling
<input type="checkbox"/> maakt niet uit		
<b>21</b> Welke <b>aspecten</b> vindt u wenselijk die voor u beschikbaar zijn via <b>internet</b> (meer antwoorden mogelijk)?		
<input type="checkbox"/> informatie over openingstijden	<input type="checkbox"/> informatie over bereikbaarheid	<input type="checkbox"/> afspraken maken
<input type="checkbox"/> informatie over behandeling	<input type="checkbox"/> informatie over specialisaties	<input type="checkbox"/> informatie over tarieven
<input type="checkbox"/> informatie over klachtenprocedure	<input type="checkbox"/> aanname nieuwe patiënten	
<b>22</b> Op welke manier vindt u het wenselijk dat een tandartspraktijk <b>informatie</b> geeft over een <b>klachtenprocedure</b> (meer antwoorden mogelijk)?		
<input type="checkbox"/> informatie in wachtkamer/receptie	<input type="checkbox"/> informatie in behandelkamer	<input type="checkbox"/> informatie gegeven door de behandelaar
<input type="checkbox"/> informatie via internet	<input type="checkbox"/> geen informatie	
<b>23</b> Welke <b>informatie</b> vindt u wenselijk dat u op de <b>factuur</b> terugziet (meer antwoorden mogelijk)?		
<input type="checkbox"/> verrichting (in duidelijke taal)	<input type="checkbox"/> datum behandeling	<input type="checkbox"/> bedrag
<input type="checkbox"/> betalingstermijn	<input type="checkbox"/> behandelaar	
<b>24</b> Vindt u het wenselijk dat u een <b>herinnering</b> krijgt voor het <b>periodiek mondonderzoek</b> (halfjaarlijkse controle)?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee

<b>Financiën</b>		
<b>25</b> Naar welke <b>betalingsmogelijkheden</b> voor de verrichte behandeling gaat uw voorkeur uit (meer antwoorden mogelijk)?		
<input type="checkbox"/> factuur	<input type="checkbox"/> contant afrekenen	<input type="checkbox"/> pinnen
<input type="checkbox"/> machtiging	<input type="checkbox"/> betalingsregeling	<input type="checkbox"/> via de zorgverzekeraar
<input type="checkbox"/> maakt niet uit		

<b>26</b> Van <b>wie</b> vindt u het wenselijk dat u de factuur <b>ontvangt</b> ?		
<input type="checkbox"/> eigen tandarts	<input type="checkbox"/> eigen zorgverzekeraar	<input type="checkbox"/> factureringsbedrijf
<input type="checkbox"/> maakt niet uit		
<b>27</b> Vindt u het wenselijk dat een tandartspraktijk <b>garantie</b> geeft op bepaalde gedeeltes van de geboden zorg (meer antwoorden mogelijk)?		
<input type="checkbox"/> ja, op een vulling	<input type="checkbox"/> ja, op een kroon	<input type="checkbox"/> ja, op een prothese (kunstgebit)
<input type="checkbox"/> maakt niet uit		<input type="checkbox"/> nee

## Kwaliteit en Veiligheid

<b>28</b> Vindt u het wenselijk dat een tandarts zich aan de <b>professionele standaard</b> houdt?		
<input type="checkbox"/> ja	<input type="checkbox"/> wat houdt een professionele standaard in?	<input type="checkbox"/> nee
<b>29</b> Vindt u het wenselijk dat een tandartspraktijk gebruik maakt van (gebruiks)protocollen en richtlijnen (bijvoorbeeld over hygiëne of telefonische bereikbaarheid)?		
<input type="checkbox"/> ja, standaard	<input type="checkbox"/> ja, en afwijken als dit weloverwogen gebeurt	<input type="checkbox"/> maakt niet uit
<input type="checkbox"/> onbekend met protocollen en richtlijnen		<input type="checkbox"/> nee
<b>30</b> Vindt u het wenselijk dat uw tandarts begrijpelijk <b>Nederlands</b> spreekt?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>31</b> Vindt u het wenselijk dat de tandartspraktijk aangesloten is bij een <b>klachtenregeling/commissie</b> ?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>32</b> Vindt u het wenselijk dat een tandarts een <b>aansprakelijkheidsverzekering</b> heeft?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>33</b> Vindt u het wenselijk dat een tandartspraktijk een <b>Risico-inventarisatie en Evaluatie (RI&amp;E)</b> uitvoert (welke risico's zijn in een praktijk aanwezig, wat te doen bij brand en dergelijke)?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>34</b> Vindt u het wenselijk dat de <b>zorgverzekeraar</b> inzage kan krijgen in het <b>medisch dossier</b> (meer antwoorden mogelijk)?		
<input type="checkbox"/> ja, elke nota moet gecontroleerd worden	<input type="checkbox"/> ja, bij verdenking op fraude	<input type="checkbox"/> maakt niet uit
<input type="checkbox"/> nee		
<b>35</b> Vindt u het wenselijk dat een tandartspraktijk een systeem hanteert dat de <b>houdbaarheid</b> van <b>materialen</b> controleert (zoals verdoving, vulmateriaal)?		
<input type="checkbox"/> ja	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee
<b>36</b> Door wie vindt u het wenselijk dat de tandheelkundige <b>indicatiestelling</b> (het vaststellen van de zorgbehoefte) in de praktijk uitgevoerd wordt?		
<input type="checkbox"/> tandarts	<input type="checkbox"/> andere zorgverlener dan de tandarts (mondhygiënist, assistent)	<input type="checkbox"/> maakt niet uit
<b>37</b> Vindt u het wenselijk dat een tandartspraktijk <b>periodiek</b> <b>getoetst</b> wordt op <b>kwaliteit</b> ?		
<input type="checkbox"/> ja, eenmalig	<input type="checkbox"/> ja, minstens één keer per half jaar	<input type="checkbox"/> ja, minstens één keer per jaar
<input type="checkbox"/> ja, minstens één keer per twee jaar	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee

<b>38</b> Vindt u het wenselijk dat een tandarts deelneemt aan <b>interview</b> (structureel onderling overleg en training met collega's)?		
<input type="checkbox"/> ja, maandelijks	<input type="checkbox"/> ja, minstens één keer half jaar	<input type="checkbox"/> ja, minstens één keer per jaar
<input type="checkbox"/> ja, minstens één keer per twee jaar	<input type="checkbox"/> maakt niet uit	<input type="checkbox"/> nee

Belang van onderwerpen		
<b>39</b> Kunt u aangeven welke <b>10 onderwerpen</b> voor u het meest <b>belangrijk</b> zijn voor de beoordeling van een tandartspraktijk?		
<input type="checkbox"/> telefonische bereikbaarheid	<input type="checkbox"/> fysieke bereikbaarheid	<input type="checkbox"/> openingstijden 's avonds en weekend
<input type="checkbox"/> wachttijden	<input type="checkbox"/> snelheid maken van afspraken	<input type="checkbox"/> parkeergelegenheid
<input type="checkbox"/> betaald parkeren	<input type="checkbox"/> toegankelijkheid gehandicapten	<input type="checkbox"/> wachtkamervoorzieningen
<input type="checkbox"/> specialisaties in de praktijk	<input type="checkbox"/> uitvoer patiënttevredenheids-onderzoek	<input type="checkbox"/> uitvoer tevredenheidsonderzoek personeel
<input type="checkbox"/> patiëntenoverleg in de praktijk	<input type="checkbox"/> overleg met collega's buiten de praktijk	<input type="checkbox"/> overleg met technicus
<input type="checkbox"/> overleg met zorgverzekeraar	<input type="checkbox"/> duidelijkheid over uitvoer van taken	<input type="checkbox"/> duidelijkheid over verantwoordelijkheden
<input type="checkbox"/> bij- nascholing tandarts	<input type="checkbox"/> bij- nascholing mondhygiënist	<input type="checkbox"/> bij- nascholing (preventie)assistent
<input type="checkbox"/> behandeling dezelfde zorgverlener	<input type="checkbox"/> informatie over behandelingen	<input type="checkbox"/> informatie via internet over praktijk
<input type="checkbox"/> informatie over klachtenprocedure	<input type="checkbox"/> informatie op de factuur	<input type="checkbox"/> herinnering periodiek mond-onderzoek
<input type="checkbox"/> betalingsmogelijkheden	<input type="checkbox"/> ontvangst factuur	<input type="checkbox"/> garantie op zorg
<input type="checkbox"/> gebruik professionele standaard	<input type="checkbox"/> gebruik van protocollen en richtlijnen	<input type="checkbox"/> Nederlands sprekende tandarts
<input type="checkbox"/> klachtencommissie/regeling	<input type="checkbox"/> aansprakelijkheidsverzekering	<input type="checkbox"/> Risico-inventarisatie en Evaluatie (RI&E)
<input type="checkbox"/> inzage medisch dossier zorgverzekeraar	<input type="checkbox"/> controle houdbaarheid van materialen	<input type="checkbox"/> uitvoeren van indicatiestelling
<input type="checkbox"/> kwaliteitstoetsing van de praktijk	<input type="checkbox"/> deelname aan interview	

*Vragenlijst patiënten*

Hebt u nog vragen of opmerkingen?

**Hartelijk dank voor het invullen van de vragenlijst!**

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**DENTSPLY**  
**LOMBERG**

